



Using NAEP Data to Learn More about Diverse Learners in Michigan

diversitydata.org
[diversitydata-kids](http://diversitydata-kids.org)

Using data to advance child well-being and racial/ethnic equity

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Overview of Discussion

- Introduction
 - About diversitydata and diversitydata-kids and why we are here today
- Overview of dd-kids research on equity in educational opportunities
 - Focus on immigrant children and English Language Learners (ELL)
- NAEP Results
- Q&A and Discussion



INTRODUCTION

*About diversitydata and diversitydata-kids
and why we are here today*



- Introduction
- dd-kids research
- NAEP Results
- Q&A

diversitydata.org - Mission

- To provide metropolitan area indicators of diversity, opportunity, quality of life and health for various racial and ethnic population groups.
- The indicators provide a scorecard on diversity and opportunity, and help researchers, policymakers and community advocates to compare metro areas and advocate for policy action and social change.



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Create customized reports describing over 100 measures of diversity, opportunity, and quality of life for 362 metropolitan areas.

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- ☐ Florida
- ☐ Georgia
- ☐ Hawaii
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- ☐ Illinois
- ☐ Indiana
- ☐ Iowa
- ☐ Kansas



Indicator Topics

[Population Demographics and Diversity](#)

[Housing Opportunities](#)

[Education](#)

[Health](#)

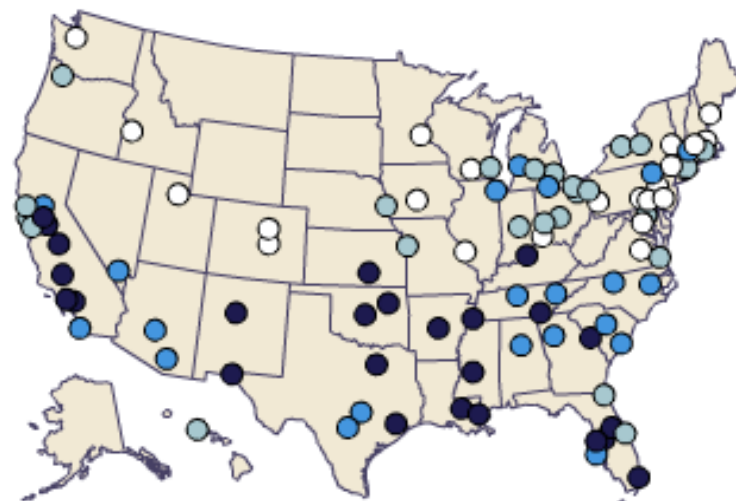
[Residential Integration and Neighborhood Characteristics](#)

[Economic Opportunities](#)

[Crime](#)

[Physical Environment](#)

FEATURED DATA



Poverty Rate in Public Primary Schools
Year: 2008-09; 100 Largest MSAs

○ 28.7% - 39.7% ● 39.7% - 46.3% ● 46.3% - 52.0% ● 52.0% - 76.6%



[VIEW THE MAP](#)

NEWS

NEW!

[New report on school segregation and high-poverty schools reveals startling inequalities](#)

Black and Hispanic children attend very different schools than do white children and are disproportionately



diversitydata.org

SPECIAL REPORT

By Nancy McArdle, Theresa Osypuk, and Dolores Acevedo-García

September 2010

Segregation and Exposure to High-Poverty Schools in Large Metropolitan Areas: 2008-09

Key Findings

For public, primary schools in the 100 largest metro areas:

- Enrollment is already “majority-minority” nationally but differs greatly across regions, with the West almost 2/3rds minority (Table 1.)
- Residential segregation and school assignment plans lead to high levels of school segregation, particularly for blacks. Black segregation is highest in Chicago, Milwaukee, and New York. Hispanic segregation is highest in LA,

Summary

Schools are a key environment influencing child development, and research has documented the negative effects of concentrated-poverty schools as well as the advantages of racially/ethnically diverse learning environments. Yet, minority children continue to attend high-poverty, high-minority schools, separate from the vast majority of white children. This report describes patterns of school segregation and poverty concentration of 30,989 public primary schools in the 100 largest metropolitan areas for the 2008-09 school year. In these schools overall, enrollment is already “majority minority,” with Hispanics comprising over a quarter and blacks almost a fifth of enrollment, but racial/ethnic school composition differs greatly across the country. School composition also differs within metropolitan areas. High levels of neighborhood segregation fuel high levels of school segregation. As a result, white students



The Boston Globe

MONDAY, SEPTEMBER 20, 2010

Area school segregation called rife

Hub, Springfield regions among US worst

By James Vaznis
GLOBE STAFF

Public schools in the Boston and Springfield metropolitan areas are among the most segregated in the country, often isolating black and Latino students in low-performing schools, according to a report released today by Northeastern University.

Of the 100 large metropolitan regions examined, the Springfield area ranked second (behind Los Angeles) for the most segregated schools for Latino students, while the Boston area ranked fourth (behind New York) in that same category, according to the study by faculty at the Institute on Urban Health Research at Northeastern University's Bouvé College

of Health Sciences.

Among the most segregated schools for black students, Springfield ranked ninth and Boston ranked 20th.

Nationwide, black students tend to be more highly segregated than their Latino peers, according to one of the report's authors, although in the two Massachusetts regions studied, the degree of segregation is roughly the same for both groups.

Overall, metropolitan areas in the Northeast and Midwest dominated the

rankings for the most segregated schools — the repercussions of segregated housing patterns and centuries-old practices of school districts run mostly by individual cities and towns, rather than by counties, the authors said.

That fragmented approach to public education has great consequences for black and Latino students, who often end up at schools with low achievement, less parental involvement, high rates of ab-

SEGRÉGATED SCHOOLS, Page A12



diversitydata-kids.org

- Introduction
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- dd-kids is a data-driven policy research project that uses data to advance child well-being and racial/ethnic equity
 - Second generation project that extends diversitydata.org
 - Equity in educational opportunities is a key dd-kids focus
- What's new:
 - Innovative indicators
 - Geography of Opportunity framework
 - New collaborators
 - New website (GIS)
 - Evidence-based policy research reviews
 - Policy Equity Tool



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Goals for Today

- Share with you some dd-kids research that (we hope) will inform your work
 - Background/contextual research about vulnerable students, with special focus on immigrant children/families and ELLs
- Hear your ideas and challenges
 - What questions you would like the data to answer about your students that would help you in your work?
 - What ideas/challenges do you have for using available data to inform discussions about equity?

Our overarching goal is to identify data sources and data uses that capture the extent to which children have (or lack) equality of educational opportunity...

...two way discussions with local partners (like you) are critical to the effectiveness and relevance of our work to practitioners, policymakers and local leaders



OVERVIEW OF DD-KIDS RESEARCH ON EQUITY IN EDUCATIONAL OPPORTUNITIES

*Focus on Immigrant Children and
English Language Learners*



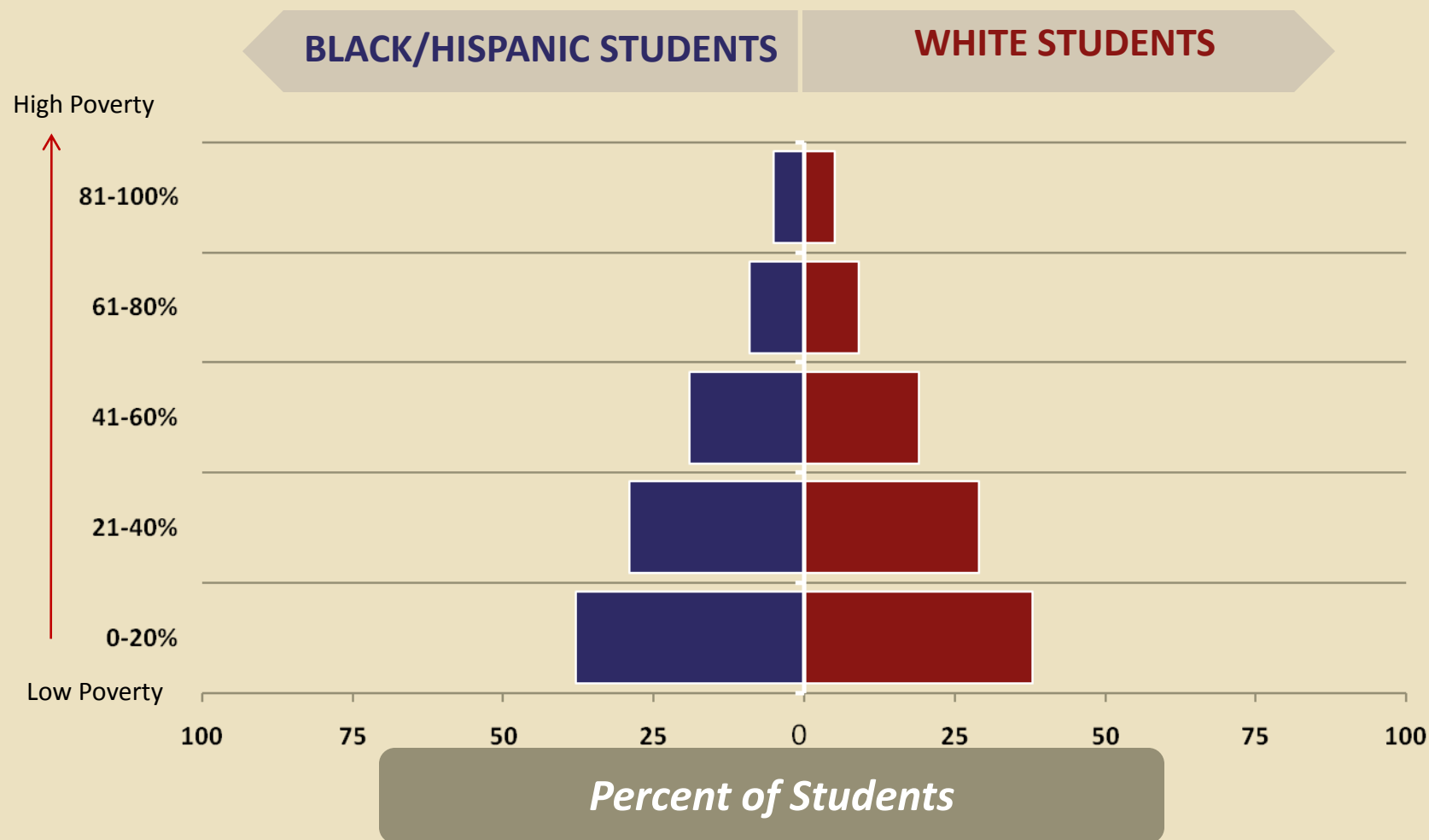
There are large racial/ethnic inequalities
in children's access to opportunity
neighborhoods/schools...



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HYPOTHETICAL Equal Distribution

(Percent of Students Attending Schools by Free/Reduced Lunch Eligibility)

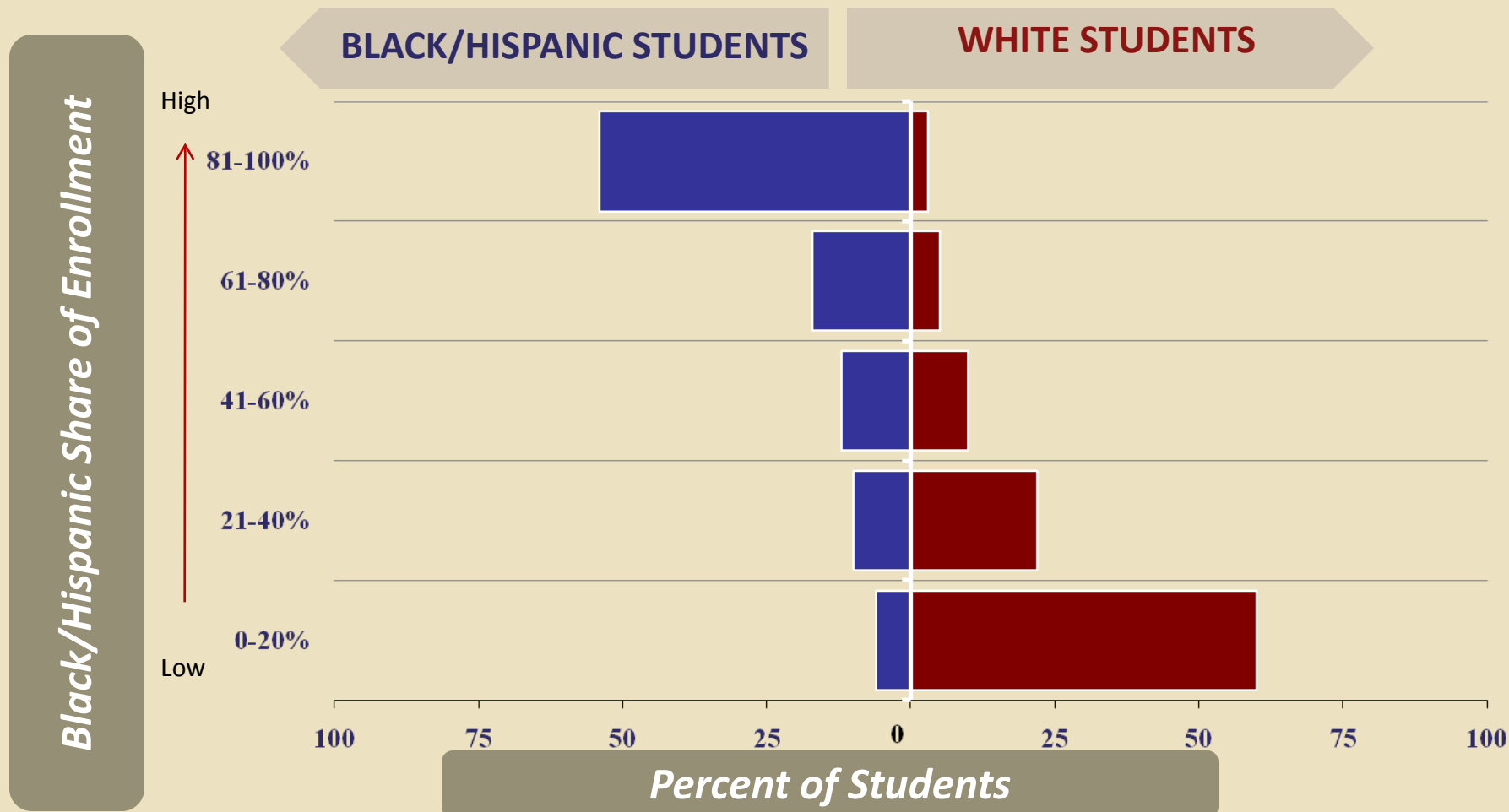




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Black/Hispanic Primary School Students Attend Schools with Dramatically Higher Shares Black/Hispanic Students Than Do Whites

(Percent of Students Attending Schools by Black/Hispanic Share of Enrollment: 2008-09)





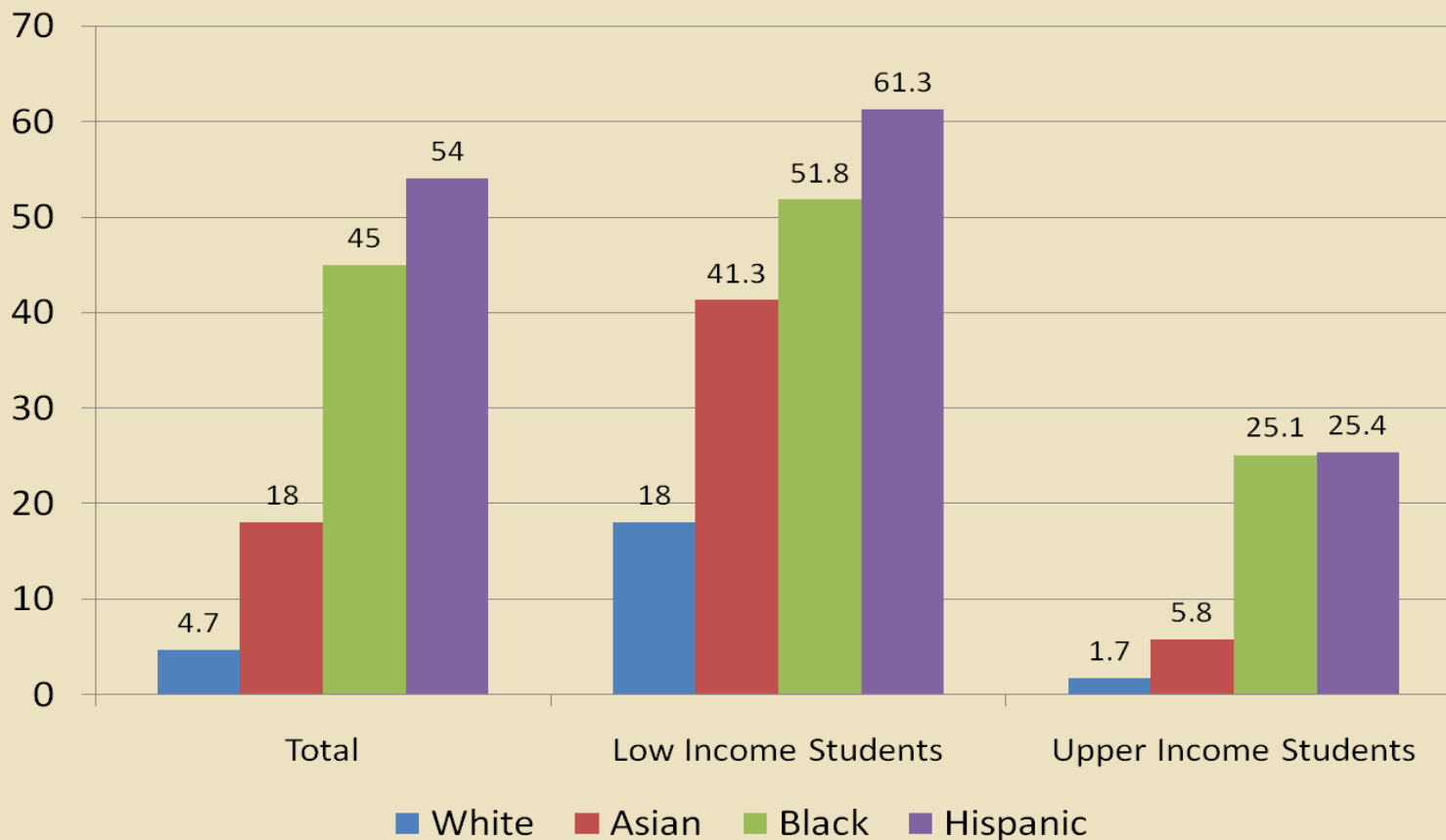
...Our research suggests that racial/ethnic inequities in educational opportunities can not be explained by income alone....



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Low-Income Minorities Much More Likely to Attend High-Poverty Schools than Low-Income White Students

Percent of MA Public Primary School Students in Schools with Poverty Rates Over 75%: 2009-10



Note: Excludes schools with students in grade 9 or higher. Income levels and poverty defined as free/reduced lunch eligibility. Excludes data on racial groups in schools with less than six students total of that particular group, reflecting MA DOE suppression of that data.

Source: Diversitydata.org calculations of MA Dept. of Education enrollment data for 2009-10 school year.



...An emergent issue in education and civil rights is equity in educational opportunities for immigrant children and English Language Learners (ELLs)...



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Amina, age 15, Kenya

“We came here to have a better life, get an education and help the new community. Today I have a happier and healthier life. Now we are happy and I on my way to college.”



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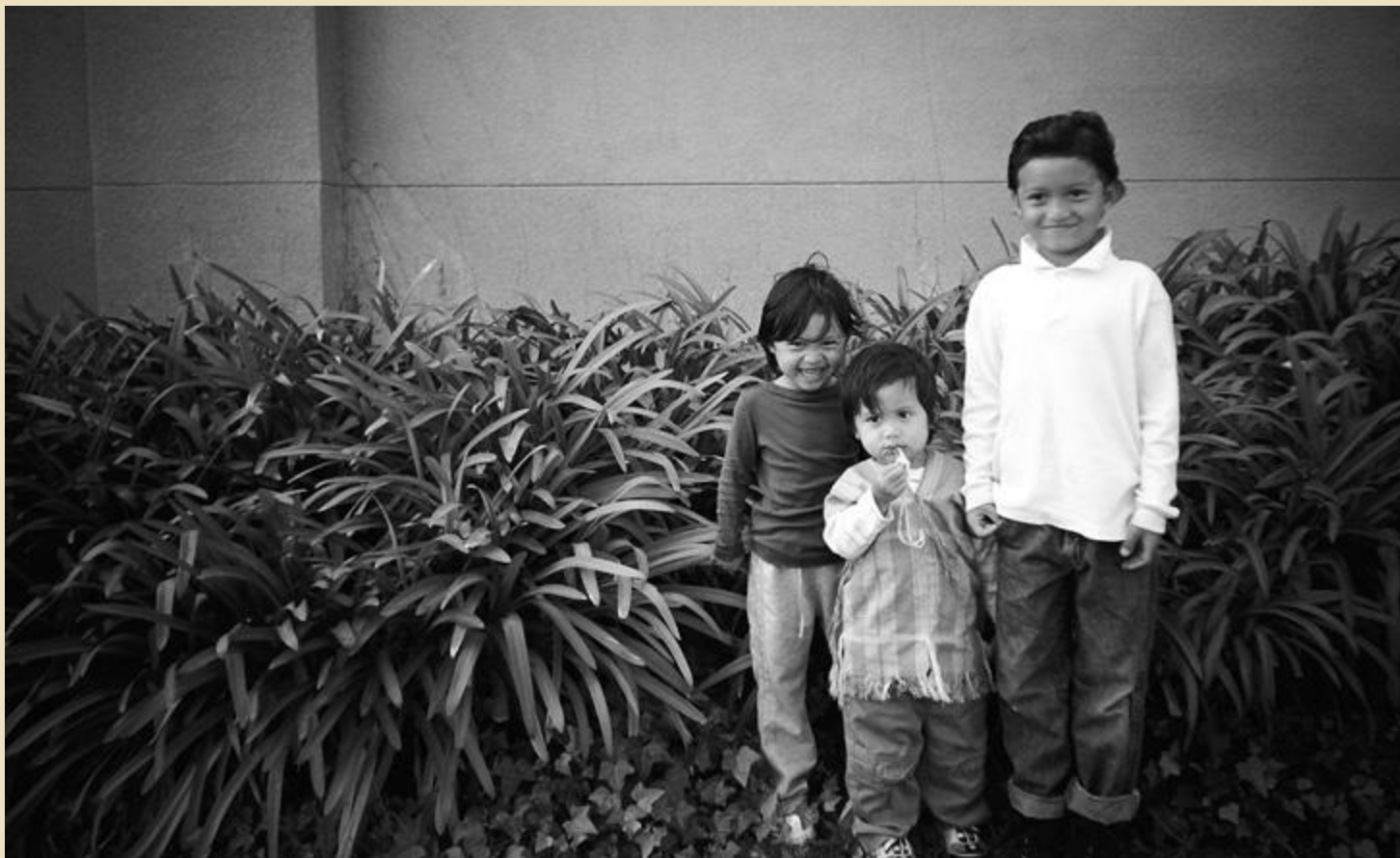


Khalil, age 11, Iraq

“When I came to U.S. I felt stupid because I don’t know anything--how to talk or understand. Then I found my best teacher that helped me to learn English.”



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Paw May, age 14, Burma

"I love my community because of the people around me that try to keep us safe."



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Photographs and captions by the AjA Project

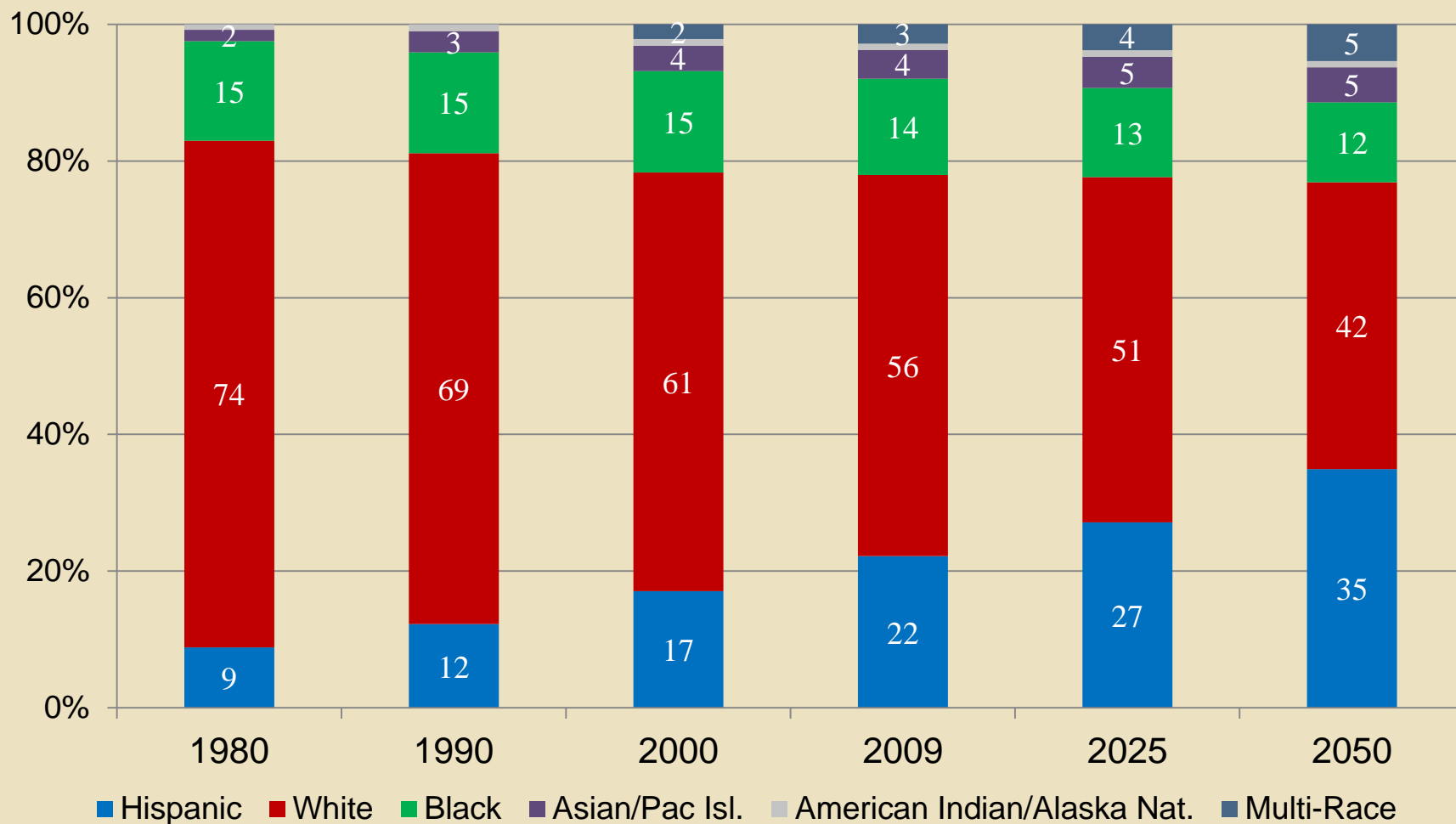
AjA, a non-profit organization headquartered in San Diego, CA, uses participatory photography methods in after-school and in-school programs to encourage immigrant and refugee youth to think critically about their identities, develop leadership skills and increase their social capacities.



Increasing racial/ethnic diversity of the
U.S. child population reflects trends in
immigration



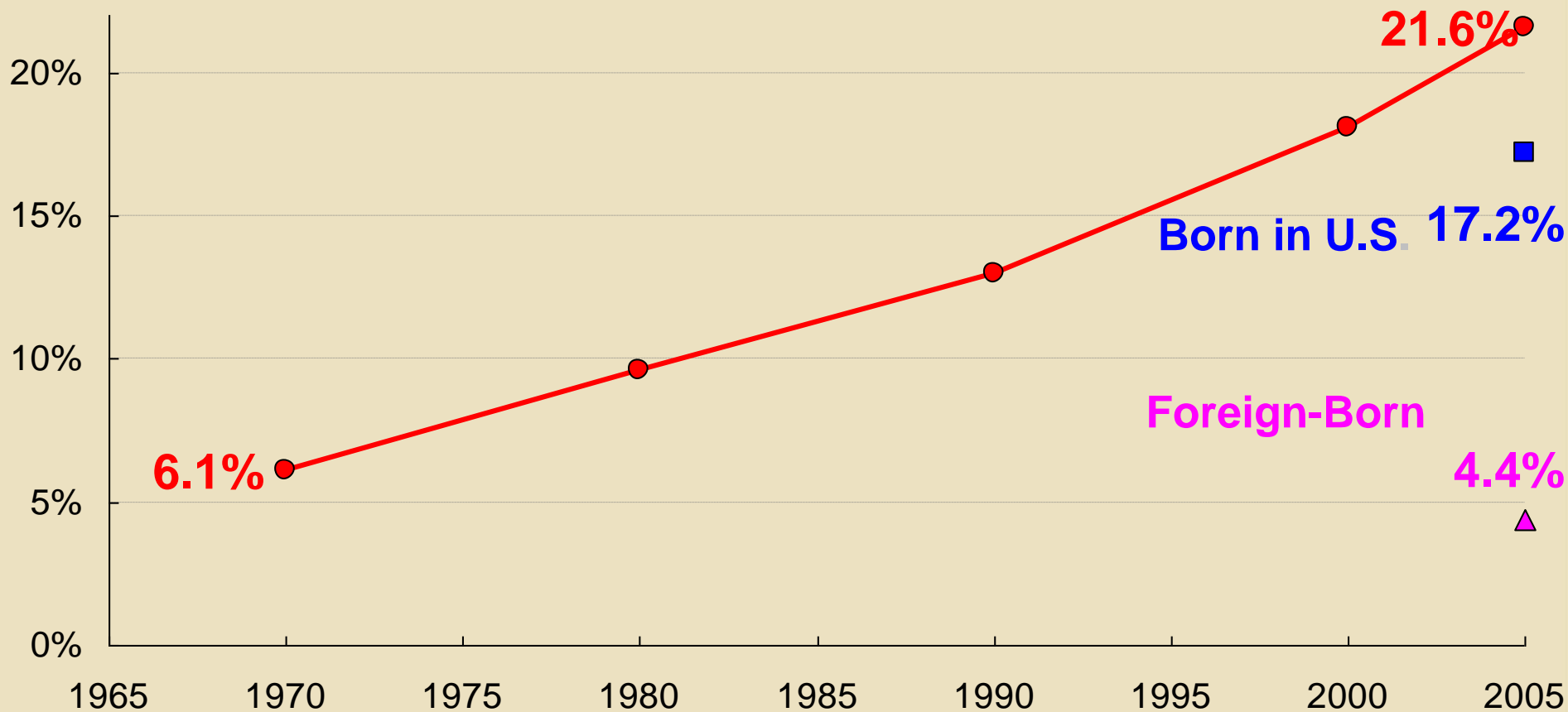
Racial/Ethnic Composition of the Child Population: 1980-2050



Note: Hispanics may be of any race. Racial groups include only non-Hispanic members. Multi-race data not available before 2000.
Source: US Census Bureau estimates and projections. Projections use Constant Net International Migration Series.



Children of immigrants as a share of U.S. children – 1970-2005

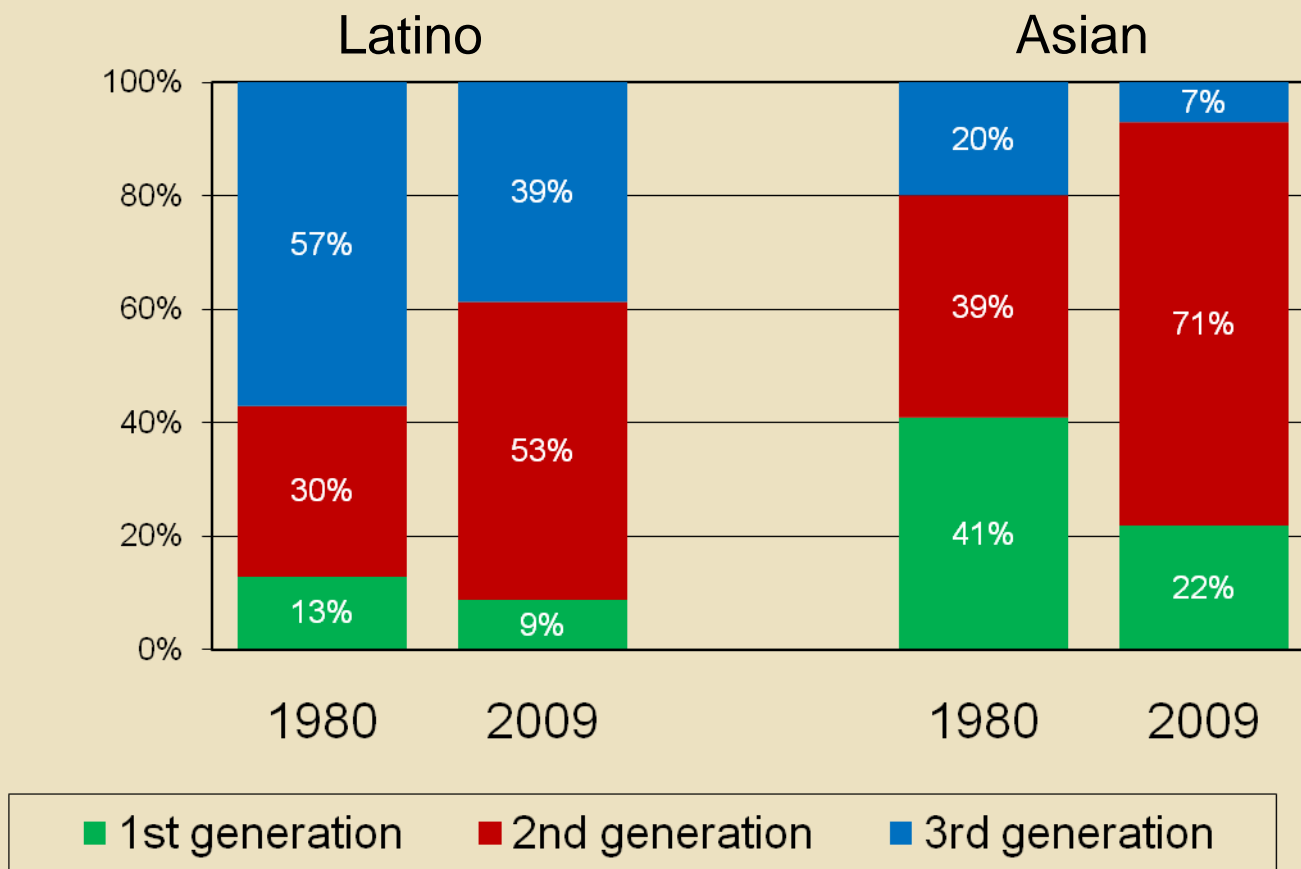


Sources: Urban Institute Tabulations from 2005 CPS, March Demographic and Economic Supplement; 1970, 1980, 1990, and 2000 Census Integrated Public Use Microdata Samples (IPUMS).

Note: Children of Immigrants have at least one parent born outside the United States.



The Second Generation Now Makes Up Dramatically Larger Shares of Both Latino and Asian Children



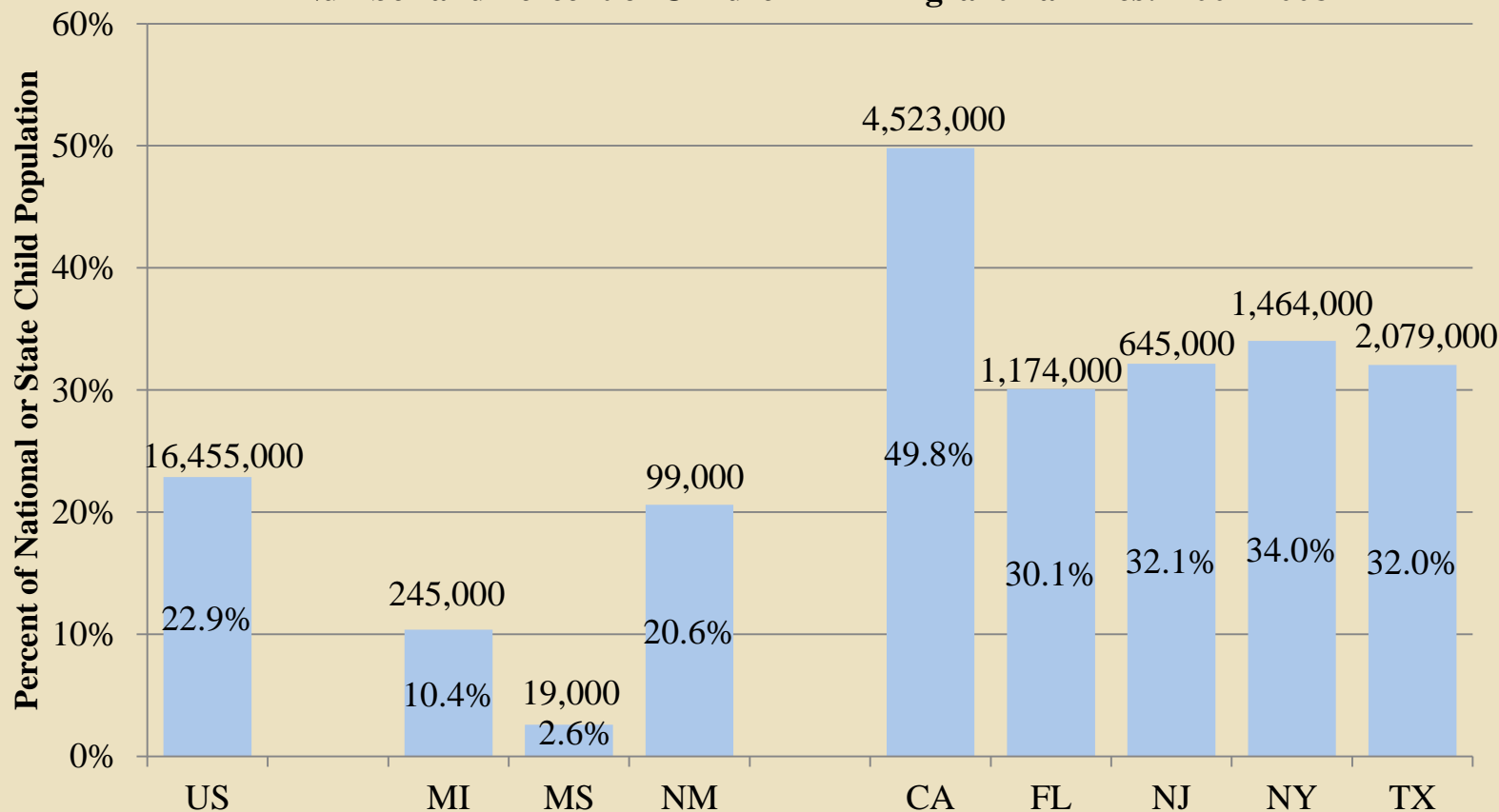
Notes: Children defined as under 18. First generation defined as being foreign born. Second generation defined as having at least one resident parent foreign-born. Third generation defined as having all resident parents native-born. Generation not determined for children in households with no resident parent. Parents include step or adopted parents.

Sources: Diversitydata.org analysis of 1980 Decennial Census, 5% PUMS and 2009 American Community Survey PUMS, accessed through Integrated Public Use Microdata Series: Minneapolis: University of Minnesota.



Children in Immigrant Families in the W.K. Kellogg Foundation Priority Areas

Number and Percent of Children in Immigrant Families: 2007-2008



Note: A child of immigrants (or a child in an immigrant family) is defined as a person under age 18 who resides with at least one foreign-born parent.

Numeric values above bars represent number of children in immigrant families.

Source: The Urban Institute. Data from the Integrated Public Use Microdata Series datasets drawn from the 2005 - 2008 American Community Survey.

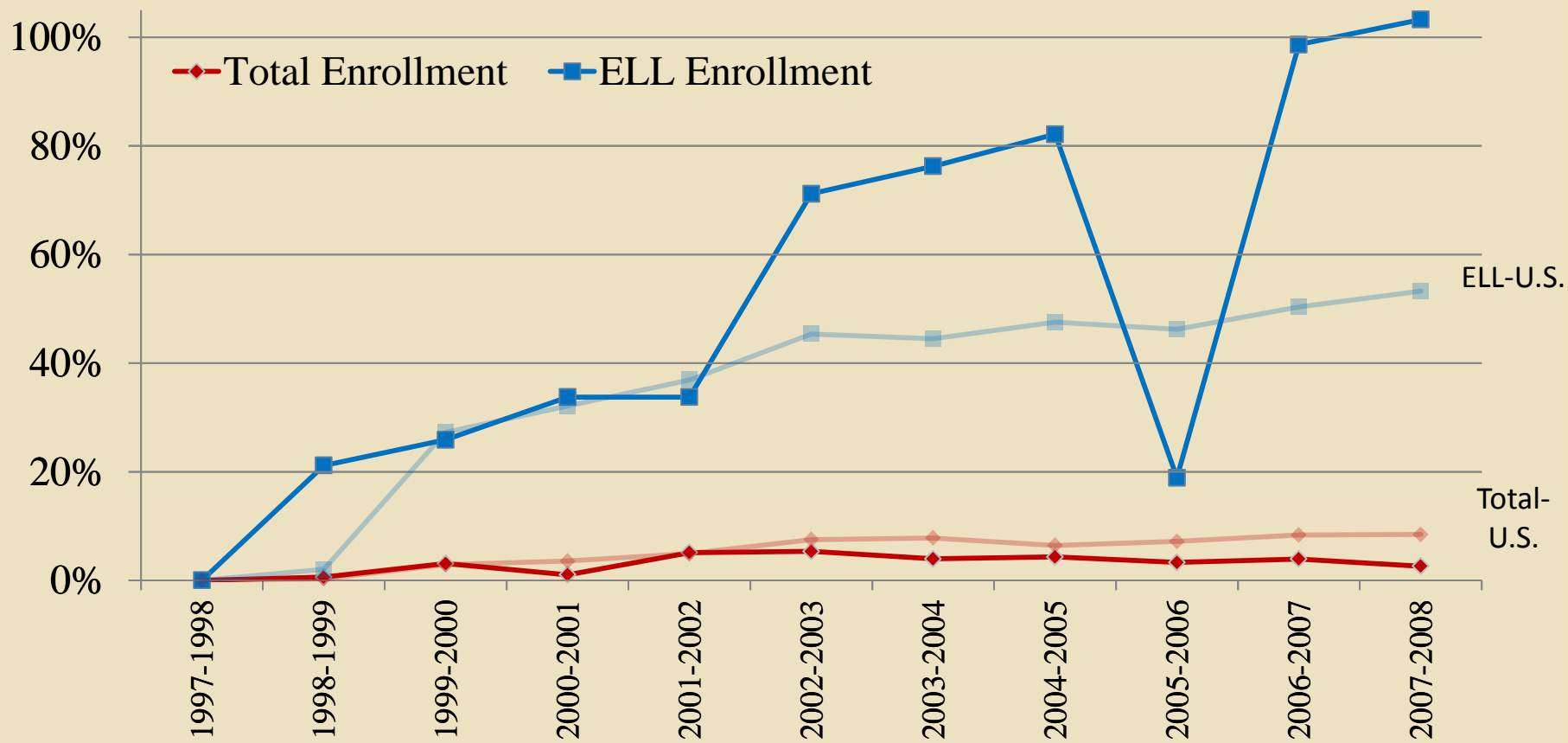


Issues Facing Immigrant Children: Implications for their Educational Equity

- Immigrants represent a large fraction of the U.S. workforce, especially in low-wage sectors.
 - This has important implications for their children.
- Diversity of immigrant children
 - Race, national origin, SES
 - Children in mixed families
 - Foreign born – legal
 - Foreign born – undocumented
 - US born of at least one parent who is not a citizen
 - US born of at least one parent who is undocumented
- Resilience/Vulnerability
 - The health uninsurance rate is 33% among immigrants compared to 13% among the US-born



Percent Change in ELL Enrollment in MI From 1997-1998





Demographic shifts that reflect immigration trends are accompanied by growth in ELL enrollment...



ELL Enrollment Trends-Absolute & Growth

	ELL Enrollment	% Change from 1997-1998	Absolute Change from 1997-1998
1997-1998			
U.S.	46,023,969		
MI	1,649,769		
2007-2008			
U.S.	49,914,453	8.5%	3,890,484
MI	1,692,716	2.6%	42,947

Source: Migration Policy Institute. Data Sources: State Title III Directors and 2007/08 State CSPR. National Clearinghouse for English Language Acquisition and Language (NCELA), State Title III Information System, www.ncela.gwu.edu/t3sis. NCELA's The Growing Numbers of English Learner Students 1997/98-2007/08.



Relative Size of Immigrant Child & ELL Populations

	ELL Enrollment	Number of Children of Immigrants	Ratio (ELL / Children of Immigrants)
2005-2008			
U.S.	49,914,453	16,455,000	3.0x
MI	1,692,716	245,000	6.9x

Note: A child of immigrants (or a child in an immigrant family) is defined as a person under age 18 who resides with at least one foreign-born parent .
Sources: Children of Immigrant data-The Urban Institute. Data from the Integrated Public Use Microdata Series datasets drawn from the 2005 - 2008 American Community Survey. ELL Enrollment data- Migration Policy Institute. Data Sources: State Title III Directors and 2007/08 State CSPR. National Clearinghouse for English Language Acquisition and Language (NCELA), State Title III Information System, www.ncelea.gwu.edu/t3sis. NCELA's The Growing Numbers of English Learner Students 1997/98-2007/08.



NAEP RESULTS



Overview of NAEP Discussion

- Why NAEP? What can we learn from NAEP about diverse learners?
 - How can NAEP results enhance our knowledge base that starts with MEAP (Michigan Educational Assessment Program)?
- About NAEP
- NAEP General Results
 - Grades: Grades 4 and 8
 - Subjects: Reading and Math
 - Subgroups:
 - Race/ethnicity groups
 - Students Eligible for National School Lunch Program (NSLP)
 - ELLs
- More detailed discussion about NAEP inclusion/exclusion policies/rates
- Using NAEP to Understand Equity Issues
 - An Example: ELL Students



Why NAEP?

- **Offers another data point:** NAEP provides additional data about student achievement in Michigan.
 - The NAEP assessment is distinct from MEAP – provides information about student performance based on a separate assessment tool.
- **Allows for cross-state comparisons:** Because students throughout the U.S. participate in NAEP, the performance of Michigan students on NAEP can be compared to students in other states – this is not possible with MEAP data.
- **Enhances our interpretation of MEAP Results:** By offering supplemental information about Michigan students, NAEP results can help us to understand patterns and results found in MEAP



About NAEP: General

- What is NAEP?
- Who is Assessed and When?
- NAEP Supplemental Surveys (Student, Teacher, School, ELL/SDD)
- Overview of Exclusion/Inclusion Policies & Accommodations

Content to Come



About NAEP: Achievement Levels

NAEP Achievement-Level Policy Definitions

Basic

Partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

Proficient

Solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

Advanced

Superior performance.

Source: NCES,

<http://nces.ed.gov/nationsreportcard/reading/achieve.asp>



NAEP Achievement Level Definitions – Example Grade 4 NAEP Reading

Table 1. U.S. Department of Education English language descriptors for each NAEP achievement level in the reading achievement level reports and reading frameworks, and an estimated range of “letter grades” describing each NAEP achievement level.

NAEP Achievement Level	NAEP English Language Descriptor	Range of Grades
<i>Advanced</i>		TAG A+
<i>Proficient</i>	Some of the best students you know Many words and terms above grade level Mastery	A B+
<i>Basic</i>	Proficiency in subject (common meaning) Overall understanding of grade-appropriate text More than minimal competency	B C-
<i>Below Basic</i>	Minimally competent	D+ F



NAEP and MEAP Results - ELL Students

Grade 4 Reading SY2008-2009

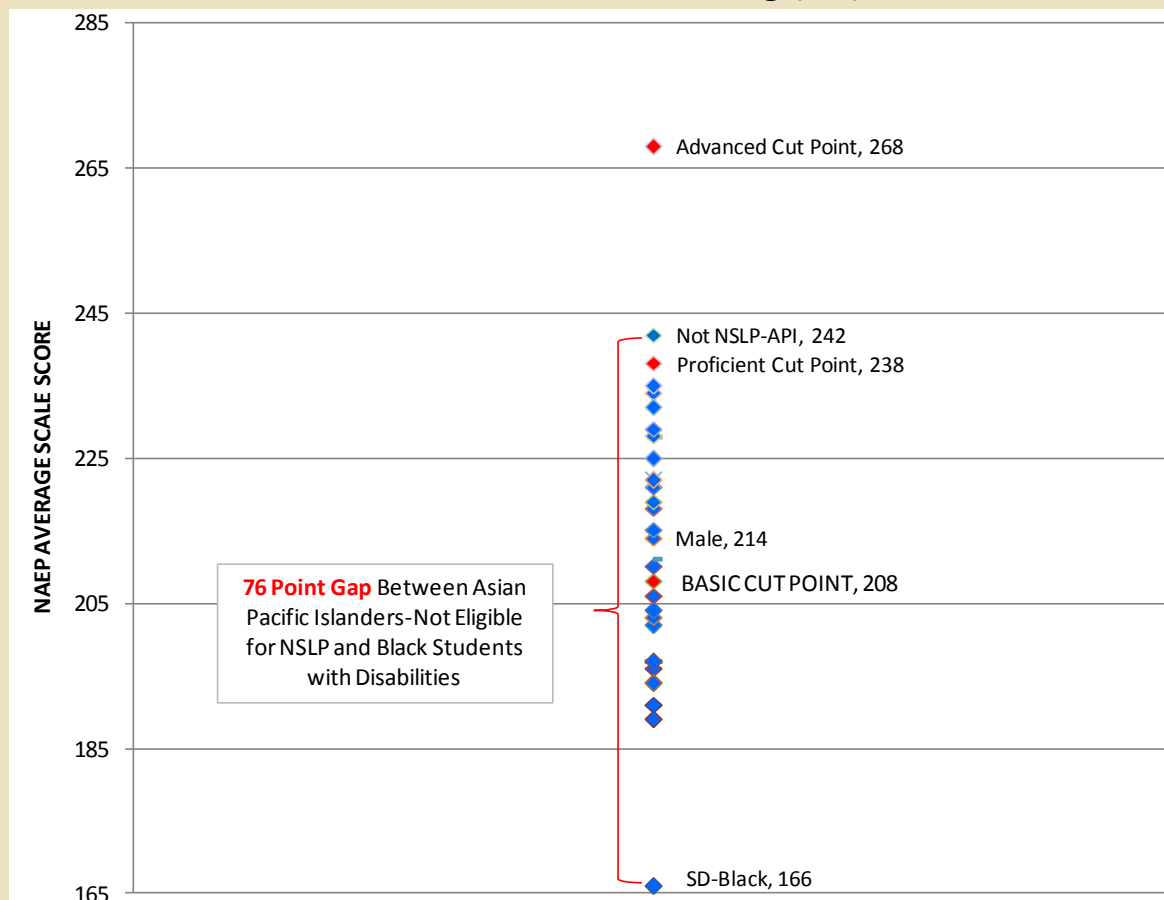
MEAP Levels	Not Proficient	Partially Proficient	Proficient	Advanced
MAEP Exclusion Rate: 3%	The student needs intensive intervention and support to improve achievement. The student's performance is not yet proficient and indicates minimal understanding and application of the grade level expectations defined for Michigan students.	The student needs assistance to improve achievement. The student's performance is not yet proficient, indicating a partial understanding and application of the grade level expectations defined for Michigan students.	The student's performance indicates understanding and application of key grade level expectations defined for Michigan students. The student needs continued support to maintain and improve proficiency.	The student's performance exceeds grade level expectations and indicates substantial understanding and application of key concepts defined for Michigan students. The student needs support to continue to excel.
	6%	33%	55%	7%
NAEP Levels	Below Basic	At Basic	At Proficient	At Advanced
NAEP Exclusion Rate: 19%		Partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade	Solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.	Superior performance.
	65%	26%	9%	<1%



How are different types of student subgroups in Michigan faring?

Group/Subgroup	Avg Scale Score
SD-Black	166
SD	189
Black-Boys	191
NSLP-Black	191
Black	194
ELL	194
Hispanic-Boys	196
SD-White	196
Black-Girls	197
Not SD-Black	197
Not NSLP-Black	202
NSLP-Hispanic	203
NSLP	204
Hispanic	206
Basic Cut Point	208
Not SD-Hispanic	210
NSLP-White	211
Male	214
Hispanic-Girls	215
All students	218
Not ELL	219
White-Boys	221
Female	222
Not SD	222
White	225
White-Girls	228
Not SD-White	228
Not NSLP	229
Not NSLP-White	232
API	234
Not SD-API	235
Proficient Cut Point	238
Not NSLP-API	242
Advanced Cut Point	268

NAEP Grade 4 Reading (MI) - 2009



Rough rule of thumb:

10 pts on NAEP scale ~ 1 year of schooling

Each diamond on chart represents a group/subgroup from table on left.



GROUP/SUBGROUP	AVG SCALE SCORE	GAPS	~1 yr of schooling	~2 yrs of schooling	~3 yrs of schooling
All students	218				
Gender:			To be updated with Just Subgroups R/E, NSLP Elig. and ELL		
Male	214	-8			
Female	222	8			
Race/Ethnicity⁽¹⁾:					
White	225				
Black	194	-31			
Hispanic	206	-19			
API	234	9			
Race/Ethnicity by Gender⁽²⁾:			Within Race-Gender Gap	Within Gender-Race Gap	
White-Girls	228		7		
White-Boys	221		-7		
Black-Girls	197				-31
Black-Boys	191				-30
Hispanic-Girls	215		19		-13
Hispanic-Boys	196		-19		-25
National School Lunch Prog. Eligibility:					
Eligible	204	-25			
Not Eligible	229	25			
NSLP Eligibility by R/E⁽³⁾:			Within Race-NSLP Gap	Within NSLP-Race Gaps	
White-Elig.	211		-21		
White-Not Elig.	232		21		
Black-Elig.	191		-11		-20
Black-Not Elig.	202		11		-30
Hispanic-Elig.	203				
Asian/Pac. Islander-Not Elig.	242				10
English Language Learners:					
ELL	194	-25			
Not ELL	219	25			
Students with Disabilities:					
SD	189	-33			
Not SD	222	33			
Students with Disabilities by R/E⁽⁴⁾:			Within Race, SD Gaps	Within SD, Race Gaps	
White-SD	196		-32		
White-Not SD	228		32		
Black-SD	166		-31		-30
Black-Not SD	197		31		-31
Hispanic-Not SD	210				
Asian/Pac. Islander-Not SD	235				



Notes to Gap Data Dashboard on Prior Page (DRAFT):

All reported gaps are statistically significant; $p\text{-value} < 0.05$ based on.....See ____ for additional technical information on statistical tests.

(1) Data N/A for Am. Indian-Did not meet NAEP reporting standards.

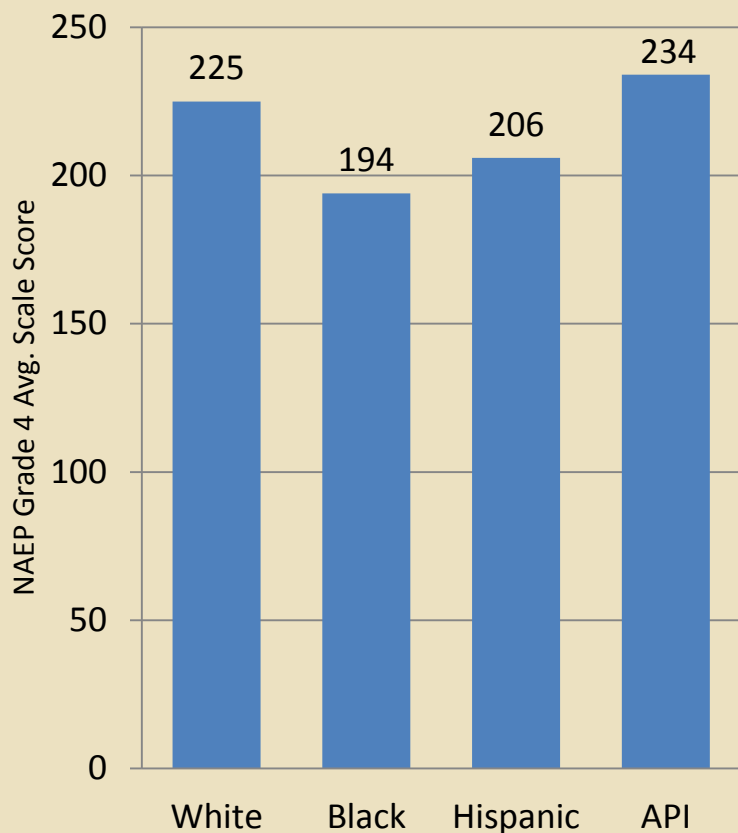
(2) Data N/A for Asian/Pac. Islanders or Am. Indian-Did not meet NAEP reporting standards.

(3) Data N/A for Hispanic-Not Elig., Asian/Pac. Islander-Elig., or Am. Indian students-Did not meet NAEP reporting standards.

(4) Data N/A for Hispanic-SD, Asian/Pac. Islander-SD

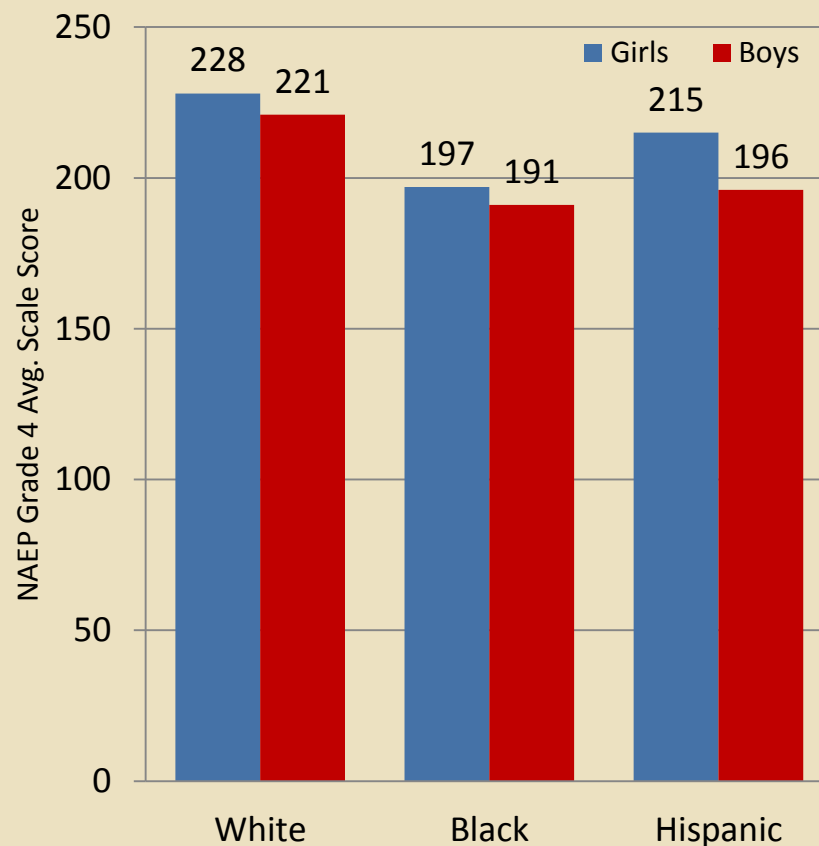
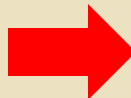


Race/Ethnicity Gaps and Gender in Michigan



Overall:

- Black students score ~30 points lower than white students
- Hispanic students score ~20 points lower than white students
- Asian/Pac. Islander students score ~10 points higher than white students



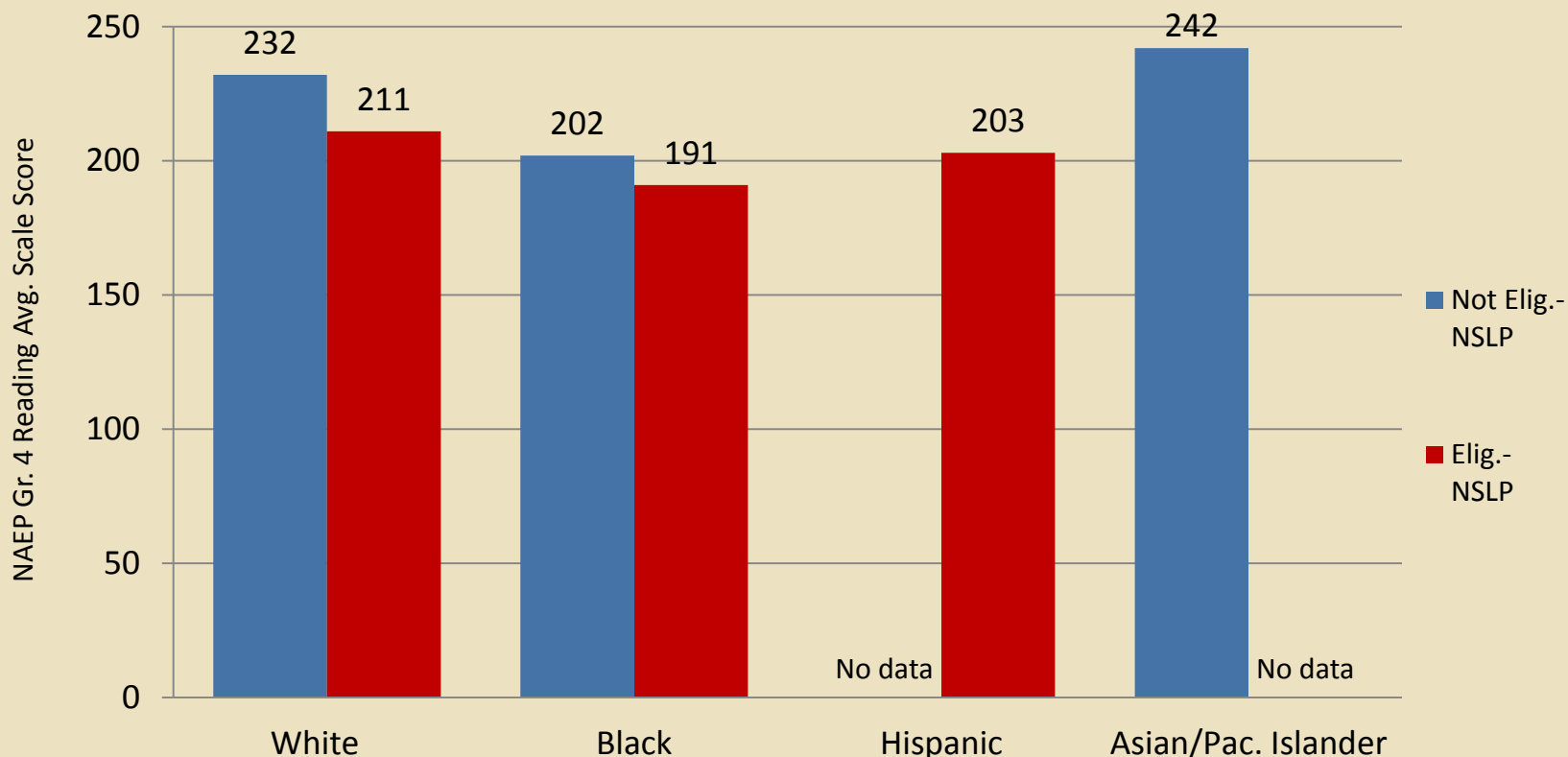
By-Gender Results Tell More Complicated Story:

- Amongst white and Hispanic students, girls score stat. significantly higher than boys
 - More pronounced for Hispanics
- While Hispanic girls still lag white girls, most vulnerable groups are black girls/boys and Hispanic boys



Race/Ethnicity Gaps and Income in Michigan

→ Race/ethnicity gaps are not just due to differences in SES

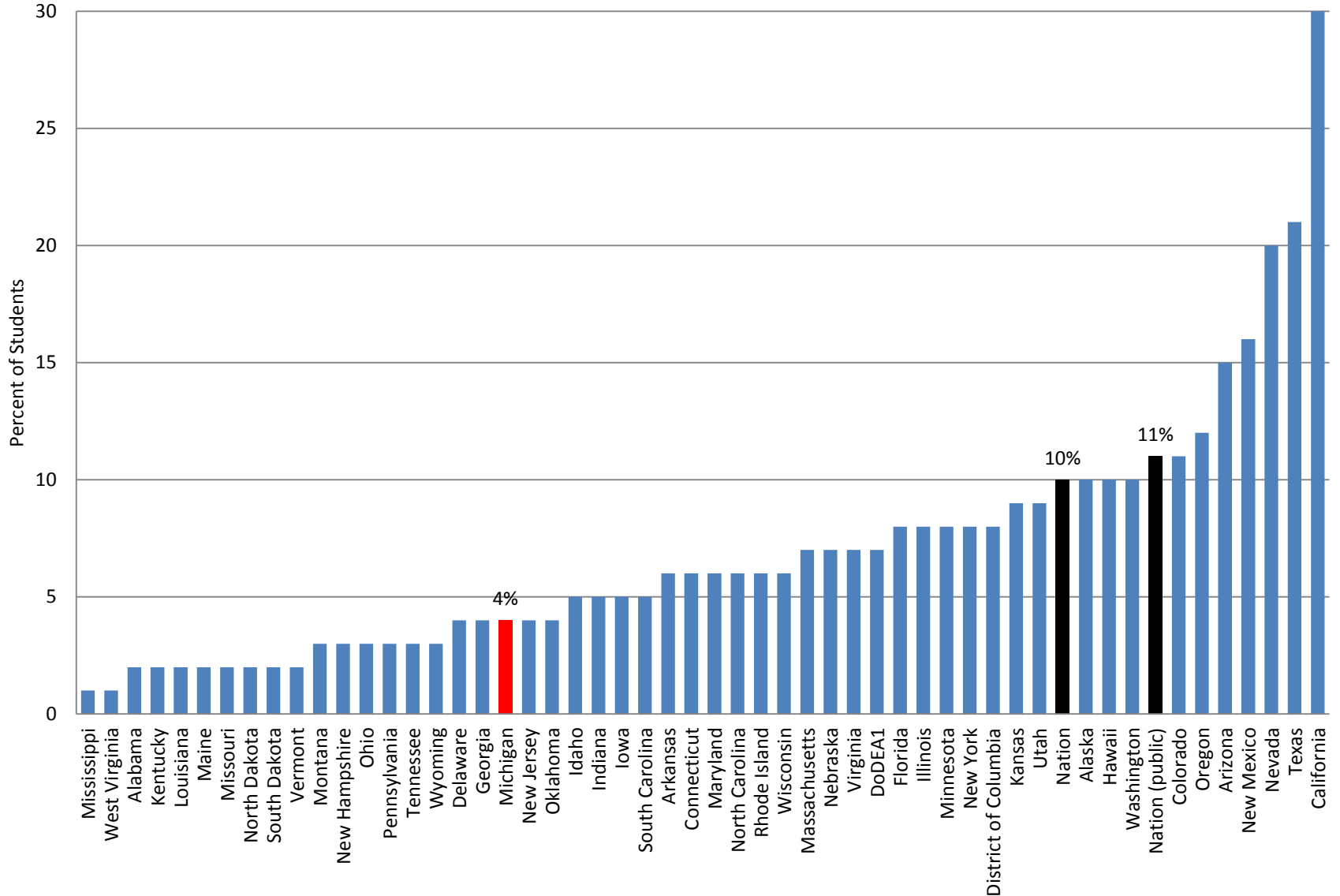


- Within both black and white subgroups, NSLP eligible students score sign. lower
- Looking within NSLP status and across race, gaps are greater at higher levels of SES:
 - The gap between black NSLP elig. and white NSLP elig. = 20 points
 - The gap between black Not NSLP elig. and white Not NSLP elig. = 30 points

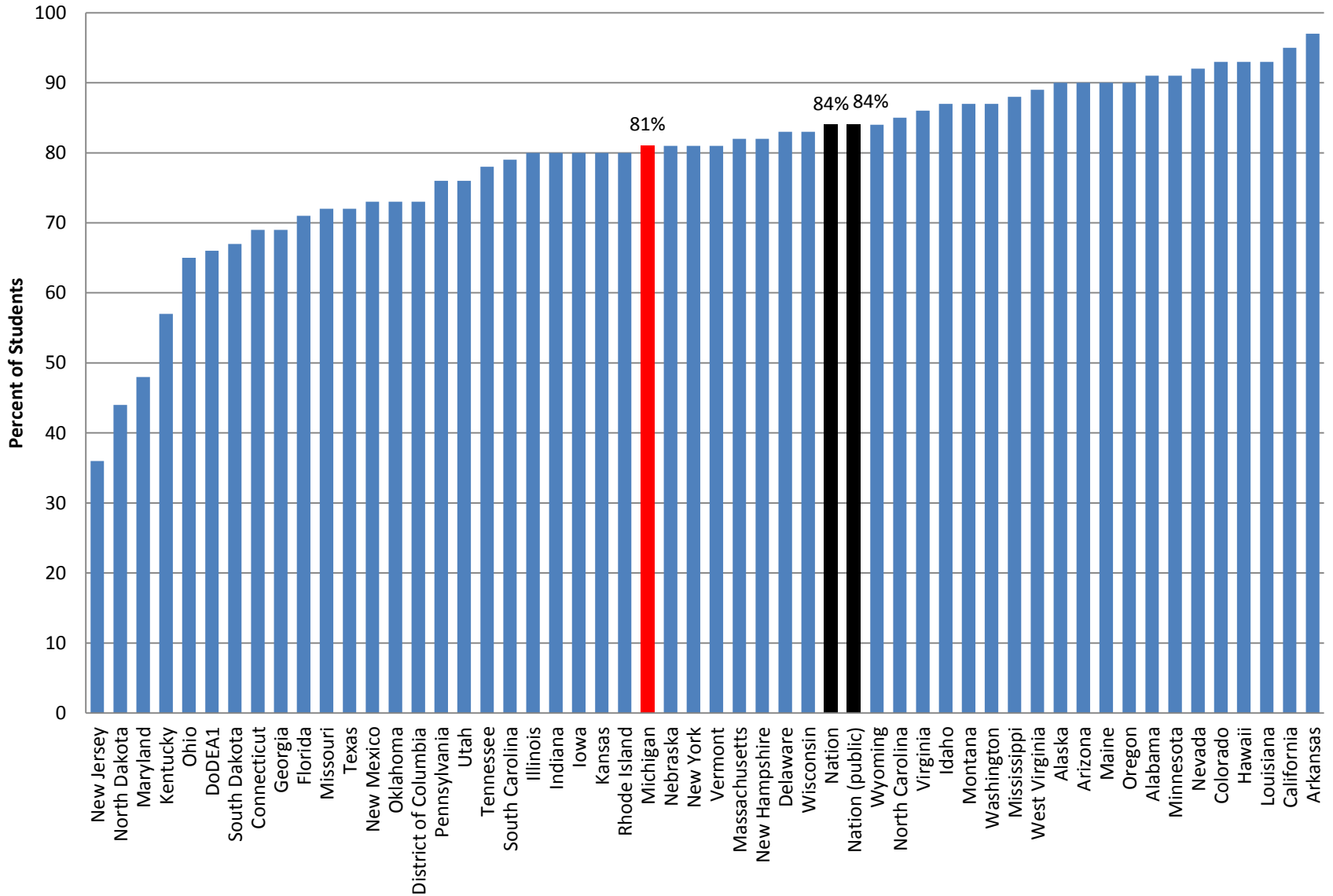


More Detailed Discussion of NAEP Inclusion/Exclusion Rates and Accommodation Practices

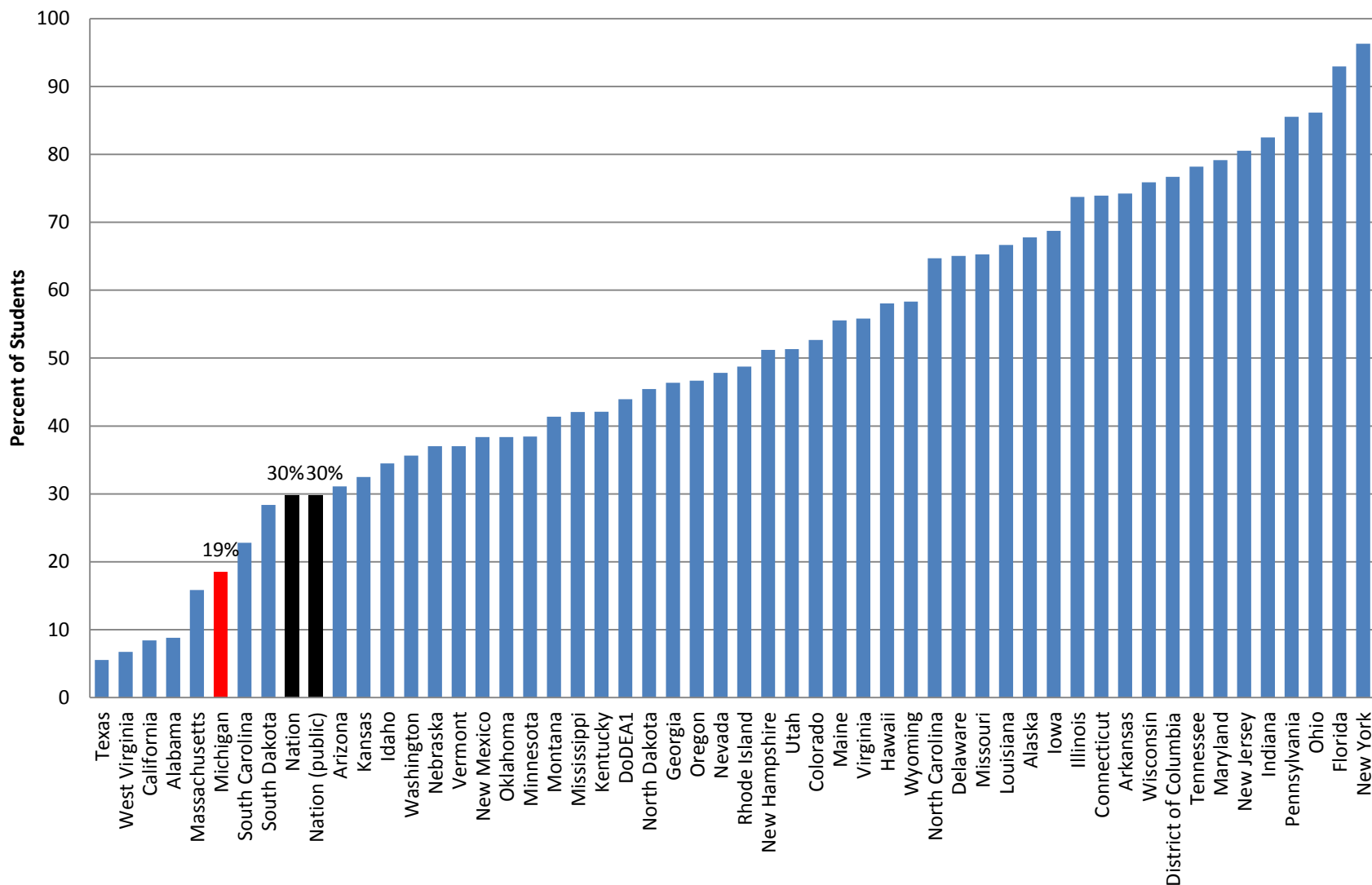
Percent of All Grade 4 Students in State Identified as ELL (2009)



Percent of Grade 4 Students Identified as ELL Assessed (2009)



Among Grade 4 Students Identified as ELL and Assessed, Those Assessed with Accommodations



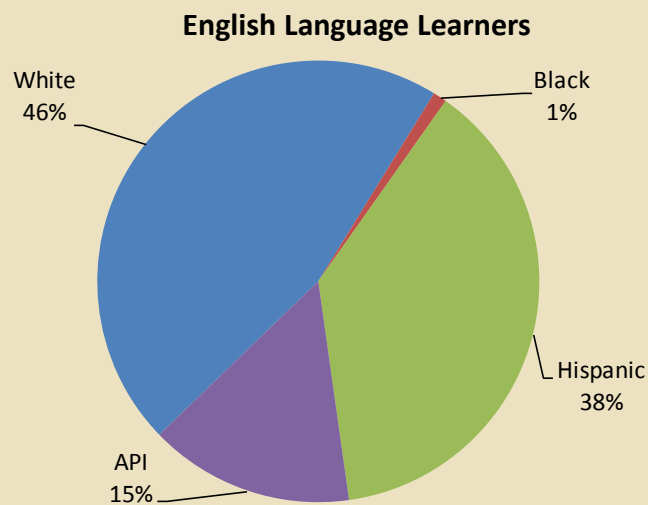
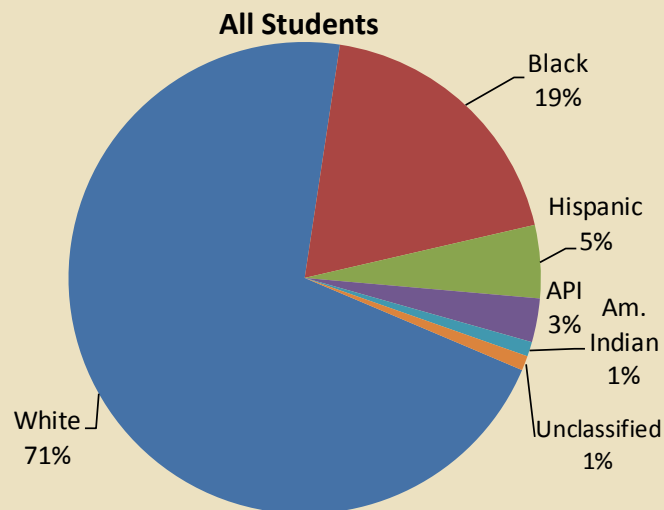
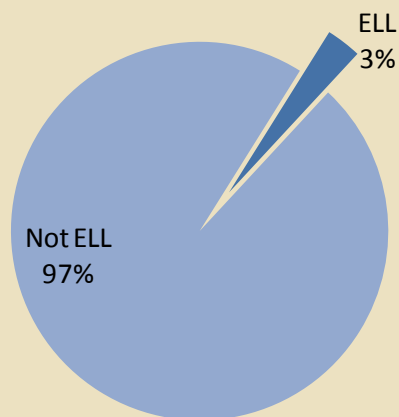


Using NAEP to Understand Equity Issues

An Example: ELL Students

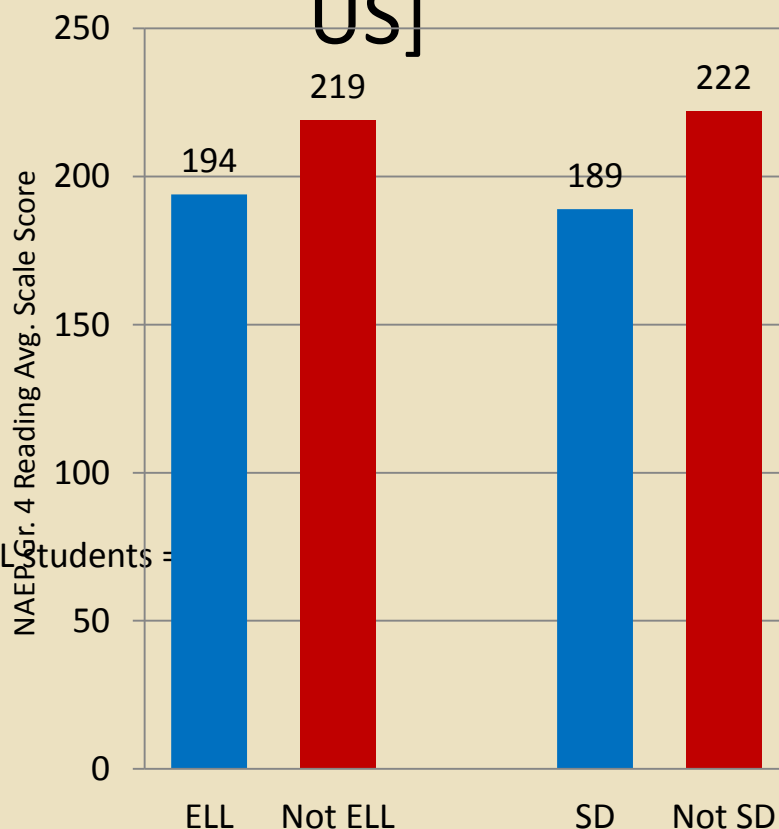


English Language Learners (Grade 4; Source: NAEP)





English Language Learners in Michigan [DELETE Students with Disabilities Info /Show Percent in NAEP Achievement Levels in MI vs. US]

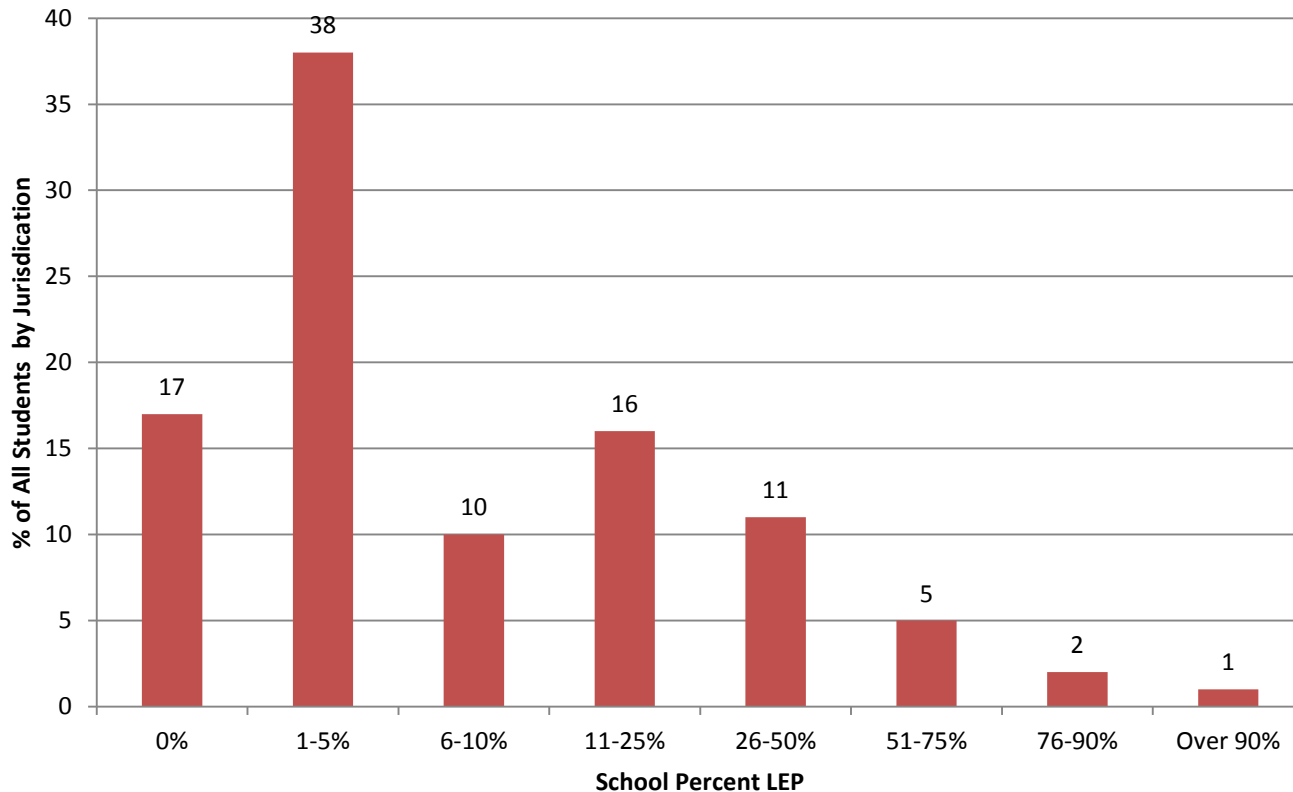


Overall:

- Gaps between ELL and Non-ELL students = points

% of Students Attending High, Medium, and Low Percent LEP Schools

US

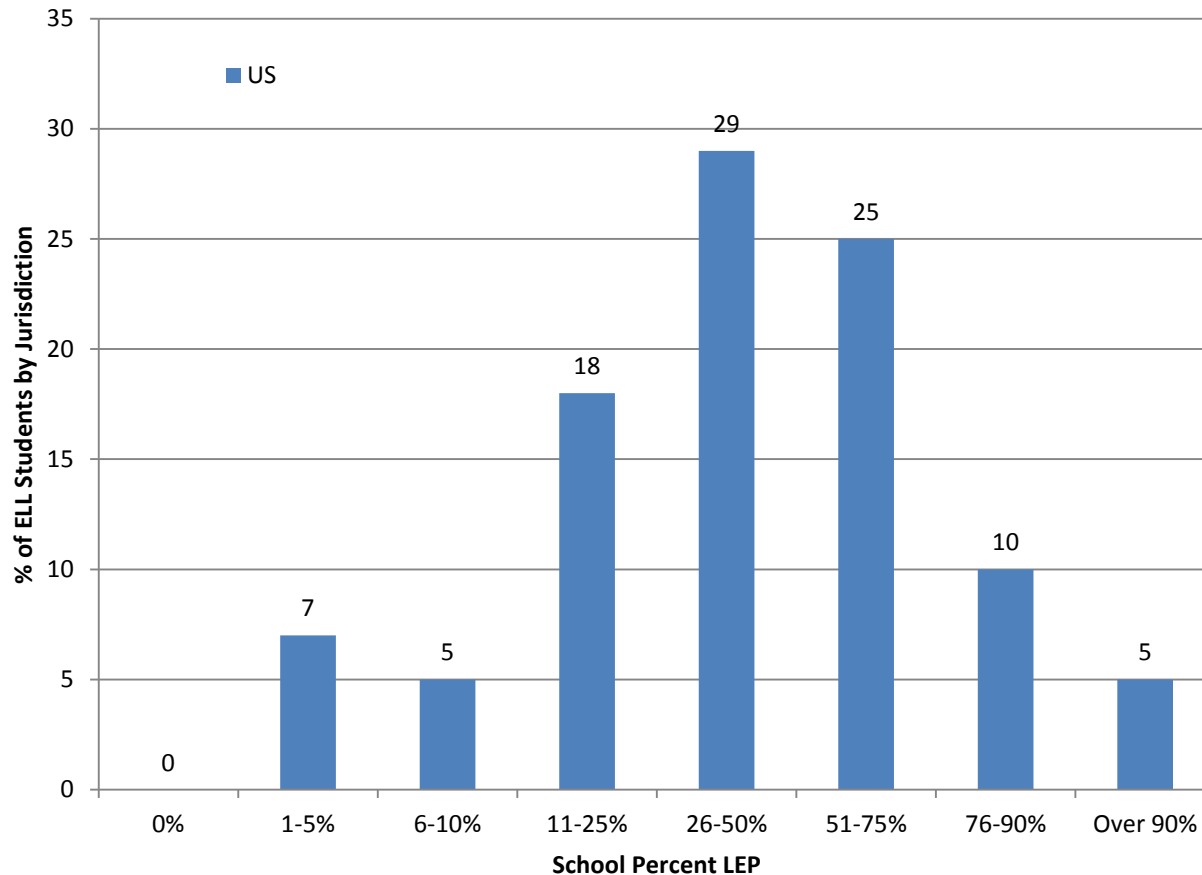


Note: the confidence intervals on this data for MICHIGAN are way too wide to report, trends are similar however, so US is illustrative

- Based on Grade 4 NAEP reading sample results, just over half of students nationally attend schools with 5% or fewer LEP students

% of ELL Students Attending High, Medium, and Low Percent LEP Schools

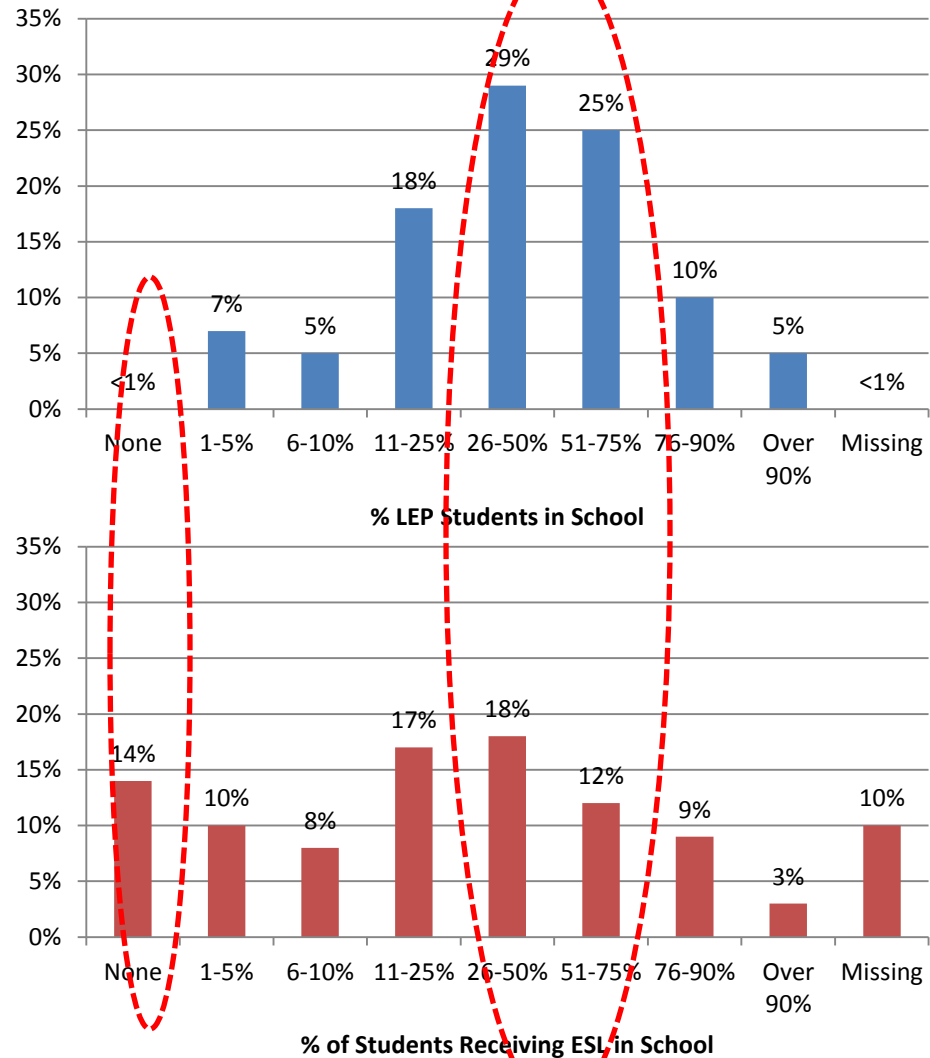
Note: the confidence intervals on this data for MICHIGAN are way too wide to report, trends are similar however, so US is illustrative



- ELL Students are more likely to attend schools with high percent LEP
- 40% of ELL Students nationally attend majority-LEP schools

% of ELL Students Attending Schools by % LEP and % Receiving ESL Services (US)

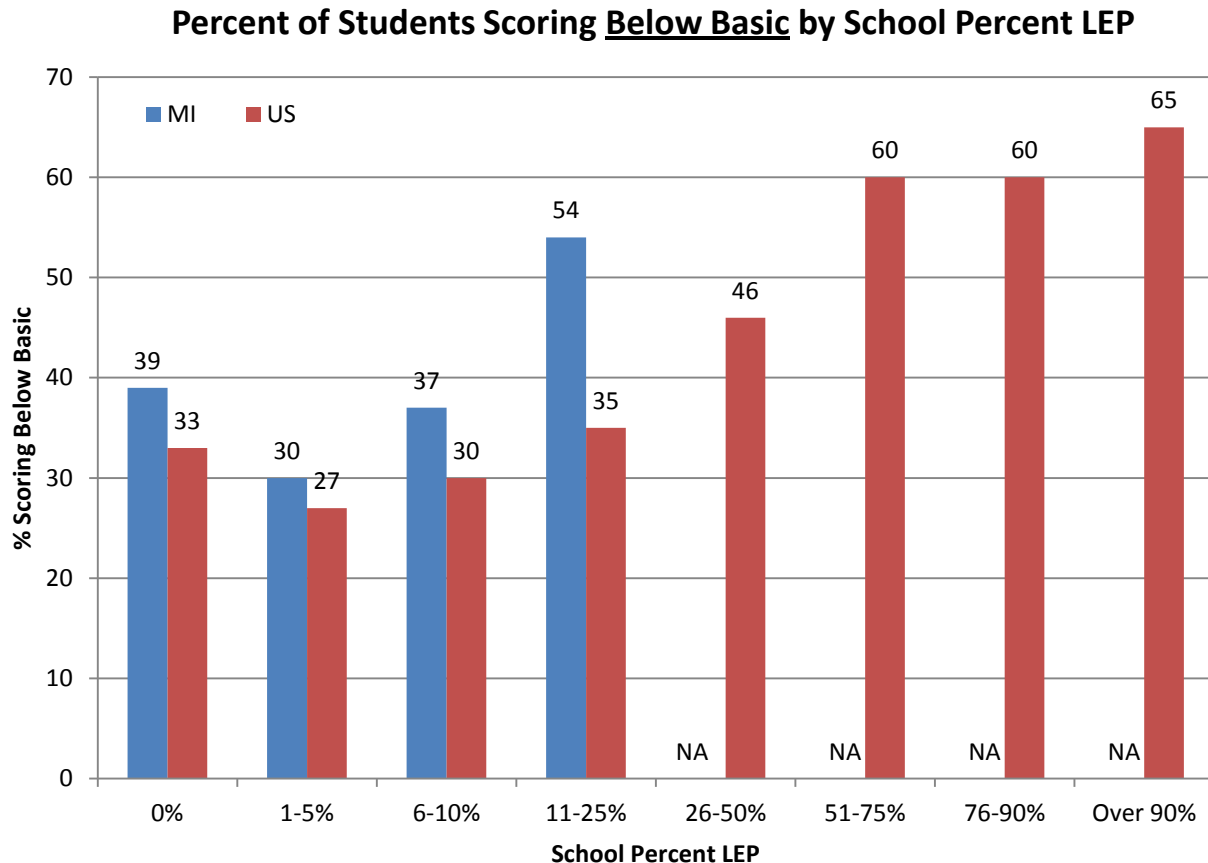
- While <1% of ELL students attend schools with 0% LEP, 14% of ELL students attend schools where NO students receive ESL services
- While the largest proportion of ELL students (55%) attend schools with 26%-75% LEP, only 30% of ELL students attend schools where 26%-75% of students receive ESL services.



% of Students Attending High, Medium, and Low Percent LEP Schools

Note: the confidence intervals on this data for MICHIGAN are way too wide to report, but I just show here as illustrative.

Also, we need to decide our comfort level of analyzing any achievement performance results for ELL students given NAEP exclusion/inclusion policy.



- On average, as school percent LEP increases, so does the percent scoring below basic
- In Michigan, schools with between 11-25% LEP students have higher amounts of students scoring below basic

Overview of % LEP/ELL Students by District/LEA in Michigan

NOTE: There is more we can do with the CCD; we can also do some spatial analysis. Let's discuss this.

616 out of 839 (73%) MI LEAs have % LEP = 0%

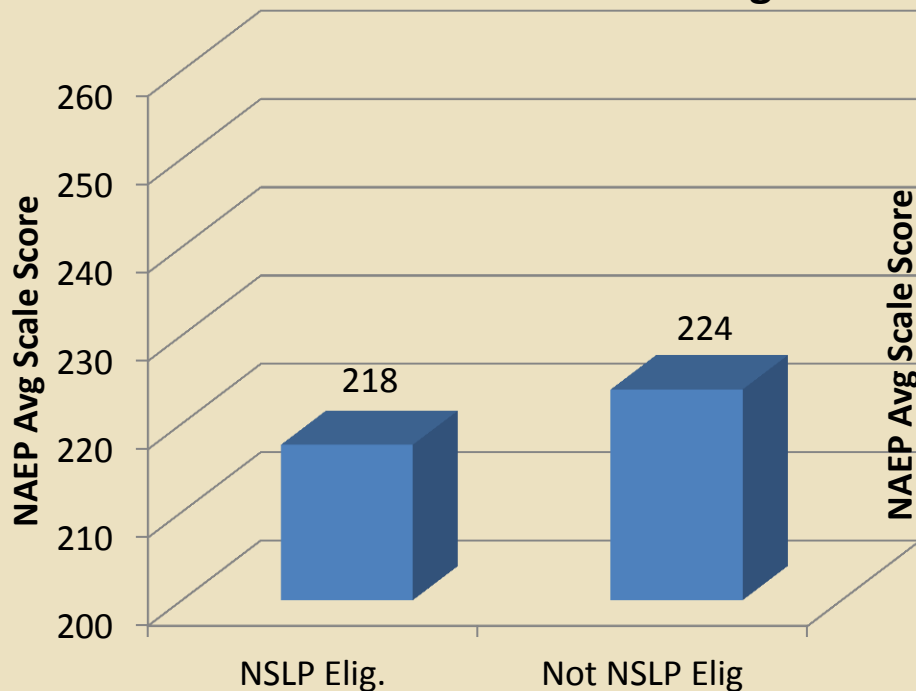
Each Bar Represents a District/LEA

LEP/ELL Students represent roughly 4% of students in Michigan



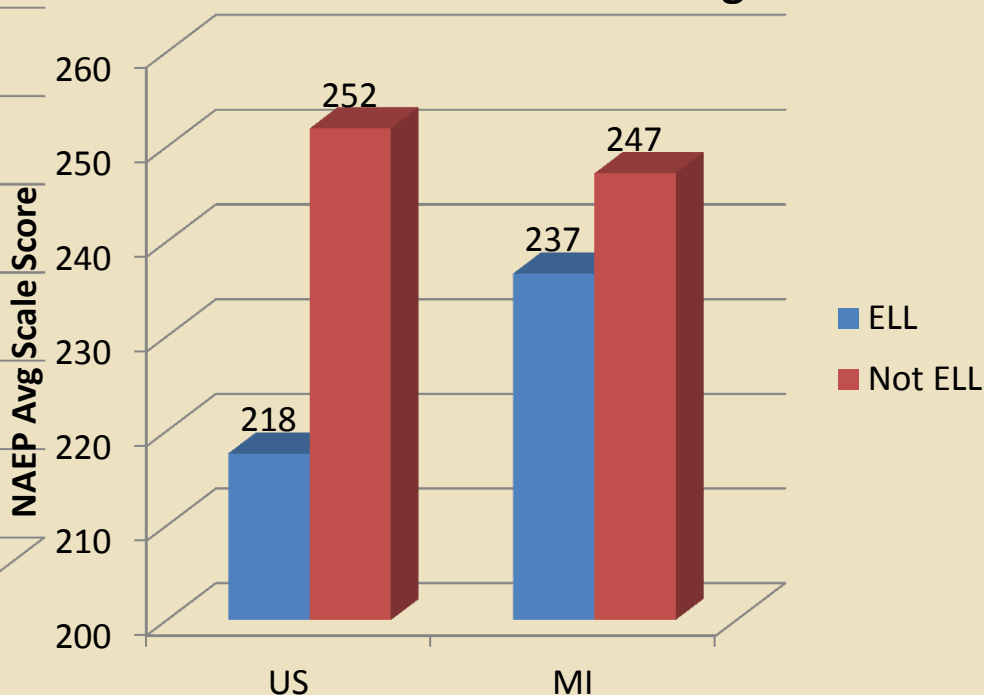
ELL Students and NSLP Eligibility

ELL Students Only (US)
Grade 8 NAEP Reading



- Among ELL students nationally, no statistically significant difference between students by NSLP eligibility

NSLP Elig. Students Only
Grade 8 NAEP Reading

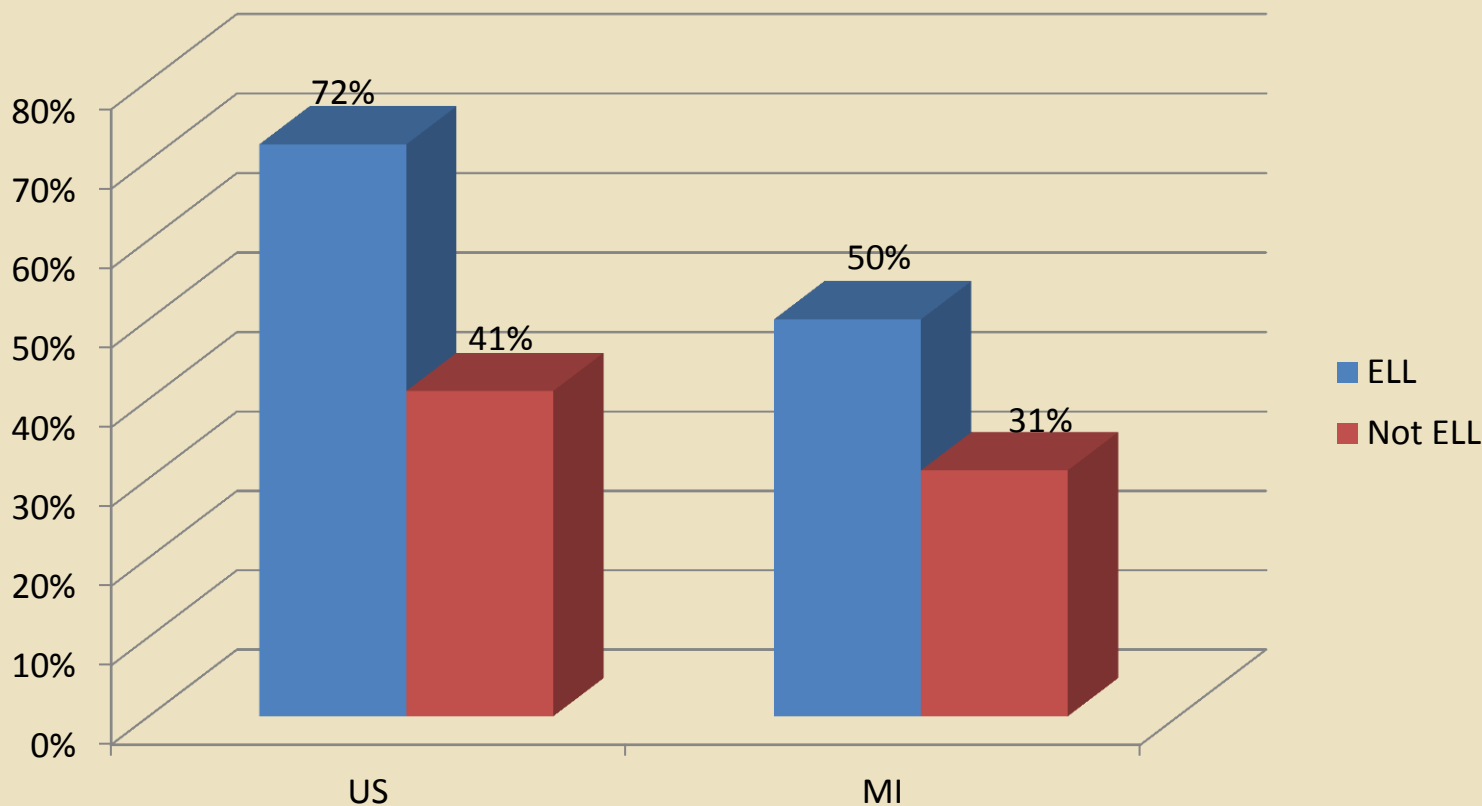


- Among NSLP Elig. students, the gap between ELL and Not ELL students in MI is significantly smaller than gap nationally, however still equivalent to ~1 yr of schooling.
- MI NSLP Elig. ELL students also score sign. higher than NSLP ELL students nationally.



School Percent NSLP Eligible-ELL vs Not ELL

% of Students Attending Schools with >50% of students NSLP Elig.



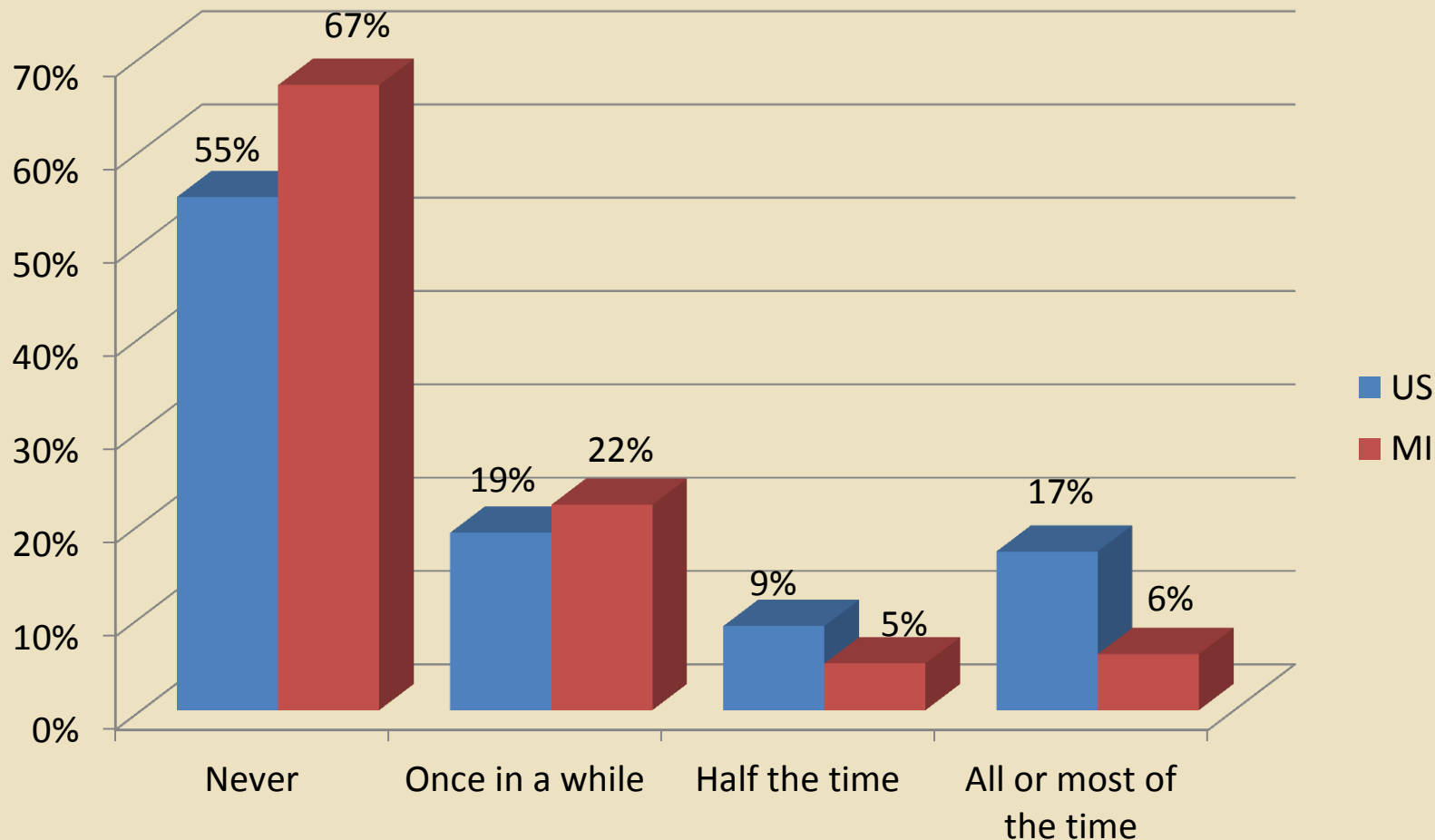
➤ In MI, ELL Students are significantly more likely than Non-ELL Students to attend majority poverty schools



Analysis Using NAEP Home Language Environment Variable



Student Responses to: “How often do people in your home talk to each other in a language other than English? ”

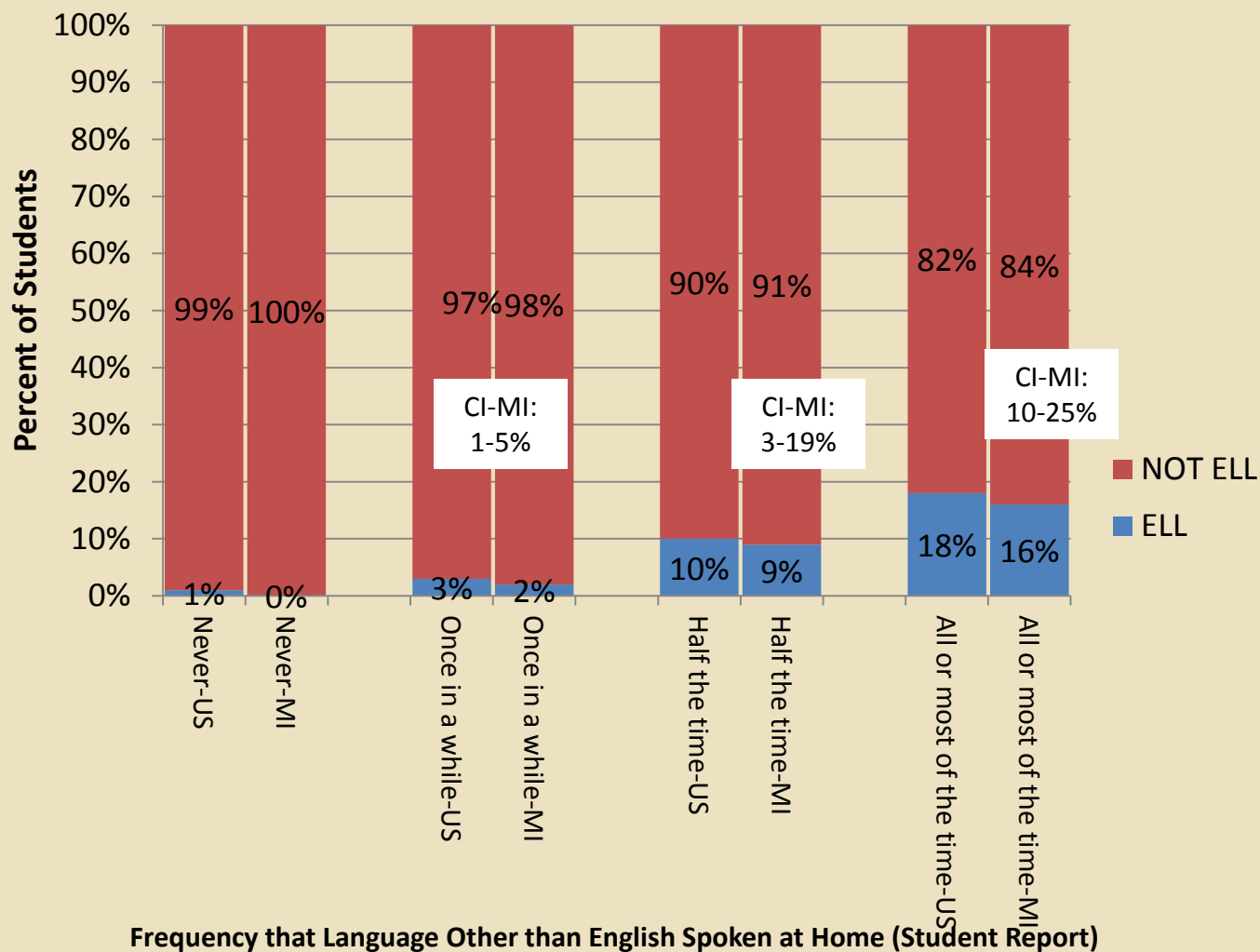


Notes: Based on Grade 8 2009 NAEP Reading Assessment Student Survey.

In Michigan, 11% of students live in homes where a language other than English is spoken half, all or most of the time (compared to 23% nationally)

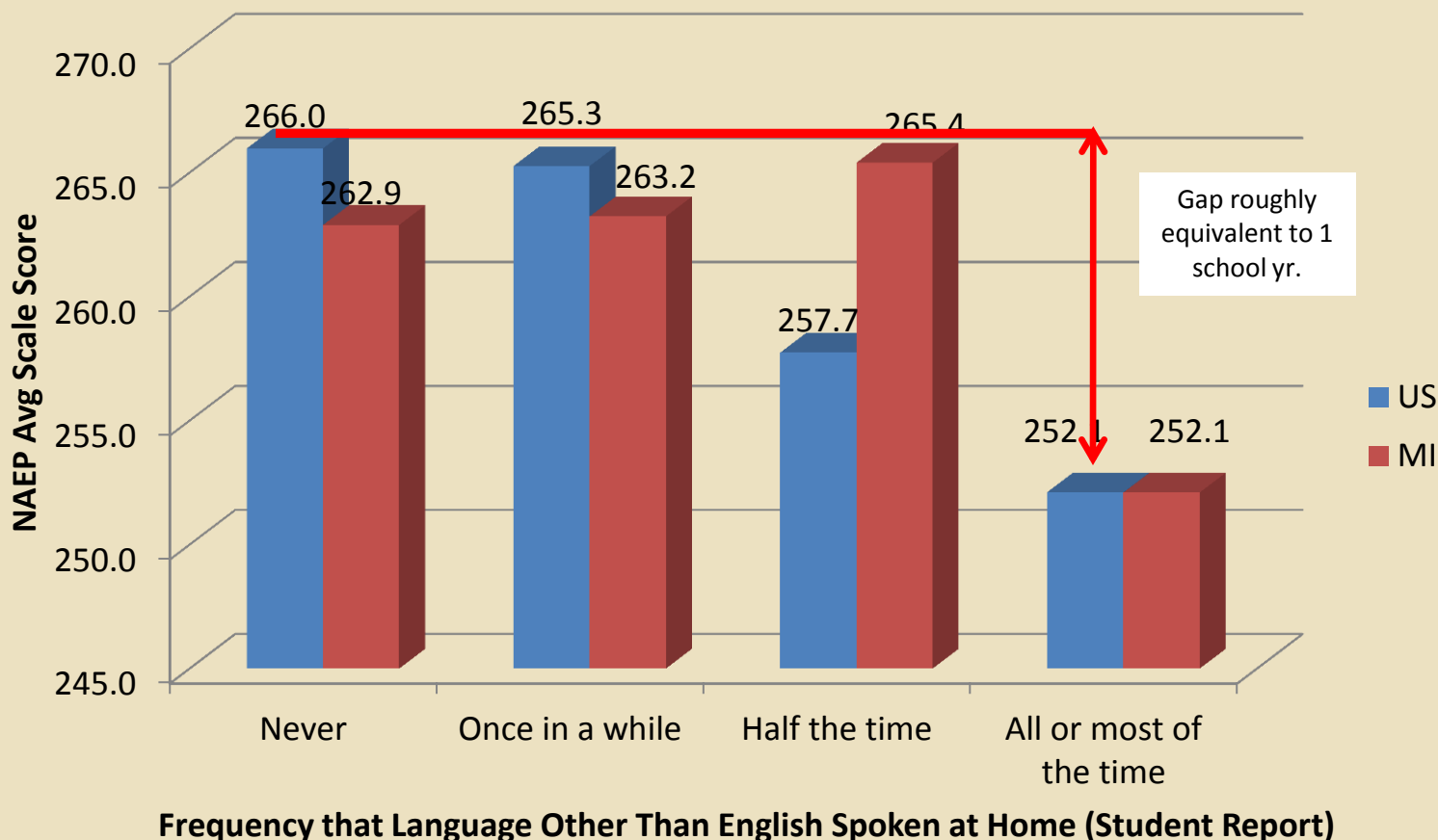


A revised version of this chart will be included.





Average Scale Scores by Home Language Environment NAEP Grade 8 Reading, 2009



Nationally, students in homes where a language other than English is spoken half, all or most of the time score significantly lower than students in homes where only English is spoken. Results for MI show similar pattern, but are not statistically significant.



Q&A AND DISCUSSION